



# APPROPRIATE INVESTMENT AREAS FOR THE KONYA PROVINCE

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<b>CONTENTS</b>	<b>PAGE</b>
<b>I. CURRENT SITUATION</b> .....	16
<b>1. ECONOMICAL and SOCIAL FIGURES FOR THE KONYA PROVINCE</b> .....	16
<b>2. PROVINCE PROFILE</b> .....	18
<b>2.1. Geographical structure</b> .....	18
<b>2.2. Climatic characteristics and vegetation</b> .....	22
<b>2.3. Natural resources</b> .....	23
<b>2.3.1. Mineral and energy resources</b> .....	23
<b>2.3.2. Water sources</b> .....	31
<b>2.3.3. Forest areas</b> .....	32
<b>3. INFRASTRUCTURE</b> .....	33
<b>3.1. Transport infrastructure</b> .....	33
<b>3.1.1. Highways</b> .....	33
<b>3.1.2. Railways and logistics centre</b> .....	35
<b>3.1.3. Airlines</b> .....	37
<b>3.2. Energy</b> .....	37
<b>3.2.1. Electrical energy</b> .....	37
<b>3.2.2. Wind power</b> .....	39
<b>3.2.3. Solar energy</b> .....	41
<b>3.3. Socio-economic infrastructure</b> .....	43
<b>3.3.1. Population</b> .....	43
<b>3.3.2. Employment</b> .....	47
<b>3.3.3. Social security</b> .....	49
<b>3.3.4. Education</b> .....	51
<b>3.3.5. Healthcare services</b> .....	56

<b>3.3.6. Tourism</b> .....	58
<b>3.3.6.1. Historical and cultural assets</b> .....	59
<b>3.3.6.2. Natural potential</b> .....	65
<b>3.3.6.3. Tourism supply and demand</b> .....	66
<b>3.3.6.4. Incentives and subsidies towards the tourism sector</b> .....	71
<b>4. AGRICULTURE and STOCK FARMING</b> .....	72
<b>4.1. Agricultural proceeds</b> .....	74
<b>4.2. Utilization of agricultural fields</b> .....	79
<b>4.3. Plant production</b> .....	84
<b>4.4. Organic Farming</b> .....	94
<b>4.5. Agricultural equipment</b> .....	95
<b>4.6. Use of chemical fertilizers and pesticides</b> .....	97
<b>4.7. Stock farming</b> .....	98
<b>4.7.1. Stock inventory</b> .....	99
<b>4.7.2. Provincial stock inventory in the region and Turkey</b> .....	105
<b>4.7.3. Production of animal products</b> .....	108
<b>4.7.4. Aquaculture</b> .....	111
<b>5. INDUSTRY</b> .....	112
<b>5.1. Industrial proceeds</b> .....	112
<b>5.2. Overview of the manufacturing industry</b> .....	118
<b>5.3. Industrial infrastructure</b> .....	119
<b>5.4. TR-52 region, economical composition and performance</b> .....	122
<b>5.4.1. Industrial concentration and aggregation</b> .....	126
<b>5.4.2. Addressing fields of investment by sector</b> .....	142

5.4.2.1. Assessment of sectors standing out and showing the potential of growth in the region.....	143
5.4.2.2. Manufacturing composition of sectors and inter-sector interaction.....	144
5.4.2.3. Inter-sector interaction and "partial linkage coefficients" .....	147
5.4.2.4. Assessment of investment areas by sector .....	153
6. TRADE.....	159
6.1. Domestic trade .....	159
6.2. Foreign trade .....	161
6.2.1. Foreign trade volume .....	161
6.2.2. Export.....	163
6.2.3. Import .....	165
6.3. Concentration in foreign trade .....	167
6.3.1. Sector and country concentration in export .....	168
6.3.1.1. Country concentration ratios in export .....	168
6.3.1.2. Sector concentration ratios in export.....	172
6.3.1.3. Concentration in export and the Herfindahl index.....	176
6.3.1.4. Concentration coefficient in export and addressing sectors standing out in provincial export.....	178
6.3.2. Sector and country concentration in import.....	181
6.3.2.1. Country concentration ratios in import .....	181
6.3.2.2. Sector concentration in import.....	184
6.3.2.3. Concentration in import and the Herfindahl index .....	187
6.4. Foreign trade potential of province and Konya's standing .....	190
7. BANKING .....	192
7.1. Deposits .....	193

7.2. Bank loans.....	196
7.3. Loan/deposit ratio.....	198
8. INCOME.....	199
9. SOCIAL-ECONOMIC DEVELOPMENT.....	202
10. KONYA BY HUMAN DEVELOPMENT INDEX (HDI).....	209
II. ANALYSIS OF THE INVESTMENT CLIMATE.....	212
1. Analysis of the geographical situation.....	212
2. Demographics analysis.....	213
3. Analysis of means of infrastructure.....	214
4. Tourism analysis.....	218
5. Trade analysis.....	220
6. Banking analysis.....	222
7. Investment incentives available for Konya.....	223
8. Strengths Weaknesses Opportunities and Threats (SWOT) analysis.....	227
8.1. Strengths.....	228
8.2. Weaknesses.....	229
8.3. Opportunities.....	230
8.4. Threats.....	231
9. Availability of the development components.....	231
III. CLASSIFICATION OF PROPOSED INVESTMENT FIELDS BY ASSESSMENT CRITERIA	234
1. Assessment criteria.....	234
2. Fields of investment proposed.....	236
2.1. Investments in the mining sector.....	236
2.2. Investments in the energy sector.....	237
2.3. Investments in the agriculture sector.....	237

<b>2.4. Investments for the manufacturing industry .....</b>	<b>238</b>
<b>2.5. Investments in the services sector.....</b>	<b>241</b>
<b>3. Classification of suggestions according to the assessment criteria.....</b>	<b>242</b>
<b>IV. Discussion and conclusion .....</b>	<b>266</b>
<b>Annex: incentives to be utilized by Konya under the new incentives system .....</b>	<b>269</b>
<b>Bibliography.....</b>	<b>280</b>

<b>TABLES</b>	<b>PAGE</b>
Table 1: Distribution and nature of mineral wealth in Konya.....	25
Table 2: Distribution and nature of lignite wealth in Konya .....	30
Table 3: Geothermal energy sources in Konya .....	31
Table 4: Forest areas in turkey and the region (ha).....	33
Table 5: Highway network in turkey and the region.....	34
Table 6: Distances from the provincial centre to other districts and other prominent provincial centres .....	35
Table 7: Total railway run in turkey and the region.....	36
Table 8: Energy consumption in the province vs overall consumption in turkey and tr52 level 2 region .....	38
Table 9: Power plants in the tr52 level 2 region .....	39
Table 10: Potential wpp capacity for Konya.....	41
Table 11: National and provincial population & annual growth rate of population according to abprs.....	43
Table 12: Ranking population by age groups (2011).....	44
Table 13: Breakdown of provincial population by residential units (2011).....	45
Table 14: City and rural population rates for turkey and Konya (%) .....	46
Table 15: Net immigration and net immigration speed.....	47

Table 16: Employment and unemployment rates (2010) .....	48
Table 17: Enemployment and employment rates for Konya .....	48
Table 18: Applications with the Turkish employment agency & placements (2010) ....	49
Table 19: Social security in turkey and Konya.....	50
Table 20: Breakdown by size of businesses covered by social security in Konya (2011) .....	51
Table 21: Breakdown of population by literacy rate and last educational institution completed .....	52
Table 22: Schooling rates by school group and gender (%) (2011) .....	53
Table 23: Number of schools, students and teachers by educational level .....	54
Table 24: Number of academic instructors and students (2010) .....	55
Table 25: Some healthcare service figures for turkey, tr52 region and Konya (2010) ..	57
Table 26: Artworks in Konya by period .....	63
Table 27: Hotels with tourism operation license in Konya (2011).....	66
Table 28: Number of arrivals to facilities and night accommodations (2010).....	67
Table 29: Average period of stay in tourist facilities and occupancy rates (2010) .....	68
Table 30: Breakdown by country of foreign tourists visiting Konya .....	69
Table 31: Visitors of museums in Konya .....	70
Table 32: Total agricultural enterprises within Konya & size of land cultivated .....	73
Table 33: Evolution of agricultural proceeds by year* .....	74
Table 34: Gdp and agriculture sector growth rate (at fixed prices of the year 1987) ...	76
Table 35: Agricultural gross value added (gva) (at current prices, thousand tl).....	77
Table 36: Breakdown of provincial territory of Konya by districts (ha) (2011).....	80
Table 37: Breakdown of cultivated lands in Konya by application .....	81
Table 38: Irrigated cultivated lands of Konya (ha) (2011).....	83

Table 39: Plant production values (1000 tl) .....	85
Table 40: Plant production values (200) (thousand tl) .....	87
Table 41: Agricultural crops and productivity (2010) .....	90
Table 42: Vegetable production (2010) .....	92
Table 43: Fruit production & trees (2010) .....	93
Table 44: Organic farming yields of Konya.....	95
Table 45: Agricultural equipment stock of the province (2010) .....	96
Table 46: Chemical fertilizer consumption of Konya (tons).....	98
Table 47: Stock farming, production values (million tl) .....	99
Table 48: Bovine inventory of Konya (2010) .....	100
Table 49: Cattle inventory trend .....	101
Table 50: Ovine inventory of Konya (2010).....	102
Table 51: Trend of ovine inventory of Konya .....	103
Table 52: Fowl inventory by districts (2010).....	103
Table 53: Bee-keeping activity by district (2010).....	105
Table 54: Provincial stock inventory within the region and turkey (2010).....	107
Table 55: Number of stocks slaughtered and milked (2009) .....	109
Table 56: Milk production and yield per stock (2010) .....	109
Table 57: Meat production and carcass weight per cattle (2009).....	110
Table 58: Share of Konya's fishing proceeds in the region and turkey (*) .....	111
Table 59: Aquaculture yields in 2010 (tons).....	112
Table 60: Progress of industrial proceeds by year* .....	114
Table 61: Overall gdp and industrial gdp growth rates (at fixed prices of the year 1987).....	115
Table 62: Progress of the industrial value added (iva) by years* .....	116

Table 63: Organized industrial zones in Konya .....	120
Table 64: Fixed capital investments by economic activity for TR and tr52 (% share) ...	123
Table 65: Investments in major sectors of the manufacturing industry for TR and tr52 (% share) .....	125
Table 66: Breakdown of economic activity by major sectors for TR and tr52 (2009, % share).....	126
Table 67: Manufacturing industry concentrations for TR and tr52 (2009, % share) .....	128
Table 68: Comparison of tr52 region and overall Turkish manufacturing industry (2009, index).....	131
Table 69: Tr52 zone, prominent sectors in the manufacturing industry .....	132
Table 70: Sectoral concentrations for turkey and the tr52 region (2009).....	135
Table 71: Cluster analysis of sub-sectors within the manufacturing industry for the tr52 region (2009, percent).....	139
Table 72: Sectoral clustering for the tr52 region .....	140
Table 73: Sectors after aggregation .....	144
Table 74: Linkage coefficients of sectors .....	146
Table 75: Partial direct backward linkage coefficients for the manufacturing industry	148
Table 76: Total partial backward linkage coefficients for sectors of the manufacturing industry.....	150
Table 77: Total partial forward linkage coefficients for sectors of the manufacturing industry.....	152
Table 78: Assessment of sectors of manufacturing industry showing potential in the tr52 region.....	155
Table 79: Companies incorporated, liquidated and wound up (cumulative) .....	160
Table 80: Foreign trade volume of turkey, tr52 region and Konya (thousand usd) .....	161
Table 81: Export trend (thousand usd) .....	163

Table 82: Breakdown of Konya exports by sector (thousand usd) .....	164
Table 83: Breakdown of Konya exports by country (2011).....	165
Table 84: Import trend (thousand usd).....	165
Table 85: Breakdown of Konya imports by sector (thousand usd).....	166
Table 86: Breakdown of Konya imports by country (2011) .....	167
Table 87: Breakdown of Konya exports by country (thousand usd and % share) .....	170
Table 88: Concentration of Konya exports by country (2007, 2009, 2011).....	171
Table 89: Breakdown of Konya exports by sector (thousand usd and % share).....	173
Table 90: Concentration of Konya exports by sector (2007, 2009, 2011) .....	174
Table 91: Concentration of Konya exports by country (Herfindahl index) .....	176
Table 92: Concentration of Konya exports by sector (Herfindahl index).....	177
Table 93: Concentration coefficients of Konya exports by sector & leading sectors ....	179
Table 94: Breakdown of Konya imports by country (thousand usd and % share).....	182
Table 95: Concentration of Konya imports by country (2007, 2009, 2011) .....	183
Table 96: Breakdown of Konya imports by sector (thousand usd and % share) .....	185
Table 97: Concentration of Konya imports by sector (2007, 2009, 2011).....	186
Table 98: Cconcentration of Konya imports by country (Herfindahl index).....	188
Table 99: Concentration of Konya imports by sector (Herfindahl index) .....	188
Table 100: Trend of bank deposits in turkey, Tr52 region and Konya (thousand tl) .....	194
Table 101: Breakdown of bank deposits by type (2010, thousand tl).....	195
Table 102: Bank deposit per capita (2010) (thousand tl).....	195
Table 103: Trend of bank loans in turkey, tr52 region and Konya (thousand tl).....	196
Table 104: Breakdown of bank loans by type (2010, thousand tl) .....	197
Table 105: Breakdown of bank loans in Konya (2010).....	197
Table 106: Bank loan per capita (2010) (thousand tl).....	197

Table 107: Loan / deposit rate (%) .....	198
Table 108: Gross value added at current prices (thousand tl).....	199
Table 109: Gross value added per capita .....	200
Table 110: Turkey and Konya in certain figures.....	203
Table 111: Human development index for the Tr-52 region (2004).....	210
Table 112: Human development index by level 2 regions.....	211
Table 113: Public investment allowances (at current prices, thousand tl).....	217
Table 114: Breakdown of public investment expenditures by sector (2011) (thousand tl).....	218
Table 115: Investment incentive certificates for Konya* .....	224
Table 116: Turkey, tr52, Konya - investment incentive certificates .....	224
Table 117: Breakdown of investment incentive certificates for Konya and the tr52 region by sector (01.01.2000-29.02.2012).....	225
Table 118: Breakdown of investment incentive certificates for Konya and the tr52 region by type (01.01.2000-29.02.2012) .....	227
Table 119: Assessment of proposed investments in agriculture and stock farming sector with respect to location factors .....	244
Table 120: Assessment of proposed investments in mining sector with respect to location factors.....	245
Table 121: Assessment of proposed investments in energy sector with respect to location factors.....	246
Table 122: Assessment of proposed investments in manufacturing industry sector with respect to location factors .....	247
Table 123: assessment of proposed investments in services sector with respect to location factors.....	260
Table 124: Estimated value of proposed investments & employment facts.....	263

<b>CHARTS</b>	<b>PAGE</b>
Chart 1: Breakdown of energy consumption by subscribers .....	38
Chart 2: Population pyramid for turkey and Konya (2011) (thousand people) .....	45
Chart 3: Breakdown of employment by sector (2010) .....	48
Chart 4: Breakdown of population by social security (2010).....	50
Chart 5: Breakdown of population by educational status (2011).....	53
Chart 6: Breakdown by country of foreign tourists visiting Konya (2010-2011 total)...	69
Chart 7: Breakdown of agricultural enterprises by land size (%).....	72
Chart 8: Agricultural growth rate for Konya and turkey (%) (at fixed prices) .....	76
Chart 9: Agricultural gav trend in turkey and the tr52 region (2004=100).....	78
Chart 10: Trend of agricultural gross value added per capita.....	78
Chart 11: Agricultural gross value added per capita for level 2 regions (2008) .....	79
Chart 12: Breakdown of provincial land by application .....	79
Chart 13: Breakdown of crop values for Konya (2007) .....	85
Chart 14: Trend of wheat production in Konya .....	88
Chart 15: Sheep inventory trend.....	106
Chart 16: The egg poultry trend.....	108
Chart 17: The egg production trend.....	111
Chart 18: Shares of Konya in the tr52 region according to various indicators .....	113
Chart 19: industrial growth rate for Konya, the tr52 region and turkey (%) (at fixed prices of 1987).....	115
Chart 20: Progress of the industrial gva of turkey and the tr52 region (2004=100) .....	117
Chart 21: Progress of gross value added per capita for the tr52 region and turkey .....	117
Chart 22: Gross industrial value added per capita for level 2 regions (2008) .....	118

Chart 23: Breakdown of industrial establishments registered with the industrial registry of Konya (2012) .....	119
Chart 24: Foreign trade performance of turkey and Konya.....	162
Chart 25: Export-import coverage ratios (%) .....	162
Chart 26: Breakdown of Konya exports by main sectors (2002-2011 average) (%) .....	164
Chart 27: Breakdown of Konya imports by main sectors (2002-2011 average) (%).....	166
Chart 28: Country concentration ratios in Konya imports, 2011.....	172
Chart 29: Sector concentration ratio in Konya exports, 2011 .....	175
Chart 30: Country and sector concentration in Konya exports according to the h-index (2002=100).....	178
Chart 31: Country concentration ratio for Konya imports, 2011.....	184
Chart 32: Sectoral concentration ratio for Konya imports, 2011 .....	187
Chart 33: country and sector concentration in Konya imports according to the h-i index (2002=100).....	189
Chart 34: Trend of bank deposits in Turkey and Konya .....	194
Chart 35: Trend of bank loans in turkey and Konya.....	196
Chart 36: Trend of the loan/deposit ratio.....	198
Chart 37: Trend of gross value added per capita .....	201
Chart 38: Value added per capita by level 2 regions (2008) .....	201
Chart 39: The trend of public investments .....	217
Chart 40: Breakdown of public investments by sector (2011, %).....	218

<b>MAPS</b>	<b>PAGE</b>
Map 1: Physical map of Konya .....	18
Map 2: Physical map of Konya province .....	23
Map 3: Mineral map of Konya province.....	29
Map 4: Map of forest wealth in Konya .....	32
Map 5: Highway transport map for the tr52 level 2 region.....	34
Map 6: Logistics centres of turkey .....	37
Map 7: Wind speed distribution for Konya .....	40
Map 8: Areas suitable to erect wind power plant in Konya.....	40
Map 9: Solar map of turkey.....	41
Map 10: Solar atlas for Konya .....	42
Map 11 Seismic map of Konya .....	212

## I. CURRENT SITUATION

### 1. ECONOMIC AND SOCIAL FIGURES FOR THE KONYA PROVINCE

<b>GEOGRAPHICAL AND DEMOGRAPHIC FIGURES</b>	<b>Turkey</b>	<b>Konya</b>
Surface area (km <sup>2</sup> )	774,815	38,257
Population of 2011 According to the Address-Based Population Registration System	74,724,269	2,038,555
Annual Average Growth Rate of Population (2010-2011) (per thousand)	13.49	12.20
Population Density (2011) (kişi/ km <sup>2</sup> )	96	53
Urbanization Rate (2011) (percent)	76.8	75.0
Net Migration Rate (2010–2011) (percent)	-	-1.18
<b>TRAINING FIGURES</b>	<b>Turkey</b>	<b>Konya</b>
Literacy Rate (2011) (percent)	92.31	94.05
Schooling Rate at Primary Education (2011) (percent)	98.67	98.75
Male	98.77	98.89
Female	98.56	98.60
Schooling Rate at Secondary Education (2011) (percent)	67.37	64.25
Male	68.53	64.53
Female	66.14	63.95
<b>EMPLOYMENT FIGURES</b>	<b>Turkey</b>	<b>TR52</b>
Rate of Agricultural Workers to Total Employment (2010) (Percent)	25.2	35.1
Rate of Industrial Workers to Total Employment (2010) (Percent)	26.2	24.6
Rate of Service Workers to Total Employment (2010) (Percent)	48.6	40.3
<b>SOCIAL SECURITY FIGURES</b>	<b>Turkey</b>	<b>Konya</b>
Population Covered by Social Security/Total Population (2010) (Percent)	83.43	89.55
<b>HEALTH FIGURES</b>	<b>Turkey</b>	<b>Konya</b>
Number of Beds per Hundred Thousand People (2010)	250	319
Number of Hospitals (2010)	1.397	37
Number of Healthcare Employees (2010)	430,943	11,188
<b>INDUSTRY SECTOR FIGURES</b>	<b>Turkey</b>	<b>Konya</b>
Share of Industrial Product in GDP (at Current Prices) (2001)	26%	18.3%
Rate of Average Annual Increase in Industrial GDP (at Fixed Prices of 1987) for the period 1989-2001	3.6%	1.3%
	<b>Turkey</b>	<b>TR52</b>
Industry Share in GVA (at Current Prices) (2008)	27.2%	22.3%
Industrial Value Added per Capita (2008) TL	3,251	2,054
Share of Manufacturing Industry in Fixed Industrial Investments (2008)	35.7%	47.9%
Share of Industry in Fixed Industrial Investments (2008)	45.5%	61.3%
Rate of Manufacturing Businesses to Total Businesses (2009)	13.1%	14.3%

Rate of Manufacturing Employment to Overall Employment (2009)	27.1%	29.1%
Rate of Manufacturing Turnover to Overall Turnover (2009)	27.3%	27.7%
Rate of Industrial Businesses to Total Businesses (2009)	13.2%	14.4%
Rate of Industrial Employment to Overall Employment (2009)	28.8%	30.4%
Rate of Industrial Turnover to Overall Turnover (2009)	32.7%	30.9%
<b>AGRICULTURE SECTOR FIGURES</b>	<b>Turkey</b>	<b>Konya</b>
Average Business Size (2001)	60 decares	131 decares
Share of Agricultural Product in GDP (at Current Prices) (2001)	12.2%	18.9%
Rate of Average Annual Increase in Agricultural GDP (at Fixed Prices of 1987) for the period 1997-2001	0.8%	-4,2%
Land Area Per Tractor (2010)	22 ha	44 ha
Chemical Fertilizers Per Hectare (2011)	372 kg	167 kg
Bovine Per Agricultural Enterprise (2001)	9	14.9
Bovine Per Agricultural Enterprise (2001)	3.6	2.4
	<b>Turkey</b>	<b>TR52</b>
Share of Agriculture in GVA (at Current Prices) (2008)	8.5%	20.0%
Agricultural Value Added per Capita (2008) TL	1.011	1,844
<b>BANKING FIGURES</b>	<b>Turkey</b>	<b>Konya</b>
Number of Banks (2011)	48	21
Number of Bank Branches (2011)	9,833	212
Average Population Per Branch (2010)	7,843	10,489
Average Deposit Per Branch (2010) (thousand TL)	59,520	30,875
Average Loan Per Branch (2010) (thousand TL)	47,928	32,289
Average Deposit Per Capita (2010) (thousand TL)	8.34	2.94
Average Loan Per Capita (2010) (thousand TL)	6.88	3.08
Bank Deposits (2010) (thousand TL)	614,486,214	5,928,158
Bank Loans (2010) (thousand TL)	506,994,403	6,199,580
Loans/Deposits Ratio (2010) (percent)	82.5	104.6
<b>TOURISM SECTOR FIGURES</b>	<b>Turkey</b>	<b>Konya</b>
Number of Accommodation Facilities with Tourism Operation License (Turkey 2010, Konya 2011)	3,687	24
Number of Beds in Facilities with Tourism Operation License (Turkey 2010, Konya 2011)	649,256	4,032
Occupancy Rate (2010) (percent)	49.17	45.14
<b>FOREIGN TRADE FIGURES</b>	<b>Turkey</b>	<b>Konya</b>
Export (2011) (thousand USD)	134,971,545	1,167,763
Import (2011) (thousand USD)	240,834,392	1,170,266
Export-Import Coverage Ratio (2011) (%)	56.04	99.78

OTHER FIGURES	Turkey	Konya
Number of Investment Incentive Certificates (2007-2011) (number)	19,405	893
Fixed Investment Value of Incentive Certificates (2007-2011) (thousand TL)	227,156,998	3,711,180
Total Employments Covered by Incentive Certificates (2007-2011)	721,424	21,531
Public Investment Expenditures (2011) (thousand TL)	36,400,287	426,031
Share of Public Investment Expenditures in Turkish total (2011) (%)	-	1.17
Energy Consumption (2010) (MWh)	172,050,628	4,776,247
Energy Consumption Per Capita (2010) (kWh)	2,333	2,371

## 2. PROVINCE PROFILE



### 2.1. Geographical Structure

The Konya province is located in the south of Central Anatolia, between the northern latitudes of  $36^{\circ} 41'$  and  $39^{\circ} 16'$ , and eastern longitudes of  $31^{\circ} 14'$  and  $34^{\circ} 26'$ . Majority of provincial territories are located in Central Anatolian region, yet a small portion from the south and south eastern part falls in the Mediterranean region. Neighboured by Ankara in the north; Isparta, Afyonkarahisar and Eskişehir in the west; İçel, Karaman and Antalya in the south; and Niğde and Aksaray in the east, Konya is the biggest province of Turkey with a

surface area of 40,814 km<sup>2</sup> including the lake, and constitutes almost 5% of the overall national territory.

As to natural assets, the province extends up to the Haymana Plateau in the north, the Cihanbeyli Plateau and Salt Lake in north east, Beyşehir Lake and Akşehir Lake in the west, volcanic mountains along a fault line frontal to the inner slopes of Toros Mountains extending up to the south of the Karaman province originating from Sultan Mountains in the west, and the Obruk Plateau in the east. The Köşkler village of Kulu district in the north, the Değirmen Village of Akşehir in the west, the Beyreli Village of Taşkent in the south and the Delimahmutlu Village of Halkapınar in the east represent the extremities of the province.

Majority of the provincial territories of Konya in form of a high plateau is housed by the "Konya Closed Basin" whereas the district Hadim is hosted by the Eastern Mediterranean basin and the Yunak district by the Sakarya basin.

The Konya Closed Basin is formed on ancient lake and sea sediments together with volcanic rocks, and constitutes a plain or mildly curly area. However, the section joining the Eastern Mediterranean Basin is relatively split by steeps and valleys.

The Konya Closed Basin formed, upon the the merger of myriad of lakes and marsh basins, hosts no major valley formations. Valleys caved in by streams originating from mountainous regions expand with increased elevation, losing their valley characteristics. The base of the Konya Closed Basin, an inland sea in ancient times, is surfaced by neogene sediments after the low tide. Subsequently, myriad of minor valley bases surfaced by alluvial deposits conveyed by streams have merged and constituted the plains in the province. Primary plains in the province are the Konya Plain, Ereğli Plain, Çumra Plain, Karapınar Plain, Altıntekin Plain, Cihanbeyli Plain, Yeniceoba Plain, Kulu Plain, and the Beyşehir-Seydişehir Plain.

**Konya Plain:** The Konya Plain, departing from the Sarayönü and Zivarı (Altıntekin) plain in the north through Bozdağ and its extension constituting the Junction of Obruk and Cihanbeyli Plateaus, and surrounded by mountains in the west and south, is spread on an area of around 4.000 km<sup>2</sup>. The biggest plain of Turkey, the Konya Plain is at an altitude of around 1,000 m, and surfaced by a thick alluvial layer. The plain has formed upon tectonic subsidence.

**Ereğli Plain:** The bottommost part of the Konya Closed Basin, the Ereğli Plain extends up to the margins of the Obruk Plateau in the north, and to Bolkar Mountains in the south and south east. Merging with the Bor Plain in the east and the Hotamış Plain in the west, the Ereğli Plain stands as one of the most productive and significant cultivated lands of Konya. There is a string of plains extending in the form of large planes between the Konya and Ereğli plains that represent the hugest plains of the region. Other plains within this string are the Çumra Plain and Karapınar Plain.

Plateaus accounting for the majority of the overall surface area of the province in terms of land forms are covered with rich steppes and constitute a major rank in stock farming and agriculture activities of the region. Primary plateaus within the region are the Cihanbeyli Plateau and the Obruk Plateau. Furthermore, the Bozkır and Hadim segments of the Taşeli Plateau fall in the provincial boundaries of Konya.

The Cihanbeyli Plateau is the leading plateau of the province. The extension of the Haymana Plateau covering the south-east of the Ankara province, the Cihanbeyli Plateau segregates from the Haymana Plateau in west of Kulu, entirely covers the west of the Salt Lake and extends up to the Sarayönü, Kadınhanı and Ilgın districts. Located at an altitude of 1,000 m, the Cihanbeyli Plateau is predominantly coated with limestone.

Partly hosted by the provincial territories of Konya, the Obruk Plateau is located between the Altıntekin and Konya plains. Rather displaying a rugged structure compared to the Cihanbeyli Plateau, the Obruk Plateau has an elevation varying between 1,000 and 1,050 m. On the Obruk Plateau extending up to Niğde-Aksaray are volcanic mountains forming upon tectonic movements. Karacadağ in Karapınar and Bozdağ in the west are the primary examples of this composition.

The south of Konya is enclosed by Taurus Mountains. Rises to the north of the province commonly extend in east-west direction. Bozdağlar are the foremost of these mountains partly housing hills. Of them, Karadağ is the highest hill (1,919 m). Mountain ranges to the west of the province extend from north to south. Prominent rises on these mountain ranges are Sultan Mountains (2,169 m) in the north, Aladağlar (2,339 m), Loras (2,040 m), and Eşenler (1,951 m). In southern part, Geyik (3,130 m), Bolkar mountains (3,154 m) and Aydos (3,240 m) overlay the Taurus mountain ranges. Volcanic mountains within provincial boundaries are Karacadağ (2,025 m) in the Karapınar region. Karacadağ (also named as the

Kırklar Hill with 1,736 m of height) located on the provincial boundary to the west of Kulu is a mountain formed through eruption.

The Konya Closed Basin houses myriad of streams, lakes and marshes. As the basin is surrounded by high mountains, majority of brooks and streams in the province cannot reach seas. Streams in the province are rather seasonal, have shooting flow characteristics and are rather short. Majority of these streams fed by snow and rain water dry out in summer. Brooks and streams within the catchment basin of the Gökpınar brook reaching the Sakarya river, and Hadim Brook and Manavgat Brook that are the northern tributaries of the Göksu river reaching the Gökpınar brook are in nature of open basins and represent rare streams as they originate from Konya and reach the sea.

The biggest stream in Konya is the Çarşamba stream. Originating from mountains to the west of Bozkır, the Çarşamba Stream merges with the irrigation channel opening into the Beyşehir Lake and reaches the Çumra Plain. This irrigation channel holds the title of being the first irrigation network of Turkey constructed by the state, and constitutes the vital stream for irrigating Çumra. Another major stream in Konya is the Ivriz Brook. Originating from the Aydos Mountain and Bozdağ to the north of Central Taurus Mountains, the Ivriz Stream merges with the Delimahmutlu Brook and pours into the Ivriz Dam. With its water-catching capacity of 83 million m<sup>3</sup>, the Ivriz Dam stands as the prominent water storage centre of the Ereğli plain. Other major streams are the İnsuyu Brook, Uluçay Brook, Balkı Brook, Takke Brook, Argıthanı Brook, Göksu (Hadim), Adıyan Creek, Meram Creek and Sille Creek.

Konya is a rich source of lakes and marshes. Among them are the Salt Lake, Beyşehir Lake, Akşehir Lake, Suğla Lake, Iğın Çavuşcu Lake, Ereklı Akgöl, Yunak Akgöl, Ereğli Marsh, Hotamış Marsh, Alakova Marsh, Aslım Marsh, Beşgöz and İnsuyu marshes. The biggest dam of the province is the Apa Barajı with a footprint of 13 km<sup>2</sup>.

Salt Lake is located at the junction of Ankara-Konya and Aksaray provincial boundaries, partly sheltered within Konya. Water stock of the lake spreading on an area of 1,620 km<sup>2</sup> is very salty and not suitable for irrigation purposes. Turkey's salt demand is predominantly covered by the Salt Lake. The second biggest lake of Konya, Beyşehir Lake has a footprint of 650 km<sup>2</sup> and is substantially housed within the provincial boundaries of Konya. The water

stock of the Beyşehir Lake is freshwater with a high aquatic value. Also employed for agricultural irrigation purposes, the lake is also a prominent bird sanctuary.

Akşehir Lake in size of 105 km<sup>2</sup> is one of the significant freshwater lakes of the country, and is also utilized for agricultural irrigation purposes in and around Akşehir. Ereğli Akgöl is a very shallow lake within the boundaries of the Ereğli district. Having a fresh water stock, the lake is fed by the Ivriz Stream. More than 200 bird species live in Akgöl reeds that are designated as conservation areas. In addition to the aforementioned lakes, the karst areas of the Konya province house lakes such as the Kızırören Sinkhole, Timras Sinkhole, Obruk Lake, Çirali Lake and Meyil Lake that have formed through water-infill into sink holes, and minor volcanic lakes. Acı Lake and Meke Lake that are examples of such volcanic lakes are within the Karapınar district. In particular, Meke Gölü has a high tourism potential.

A National Park exists within the boundaries of Konya's Beyşehir district. Designated as a national park in 1993, the Beyşehir Lake National Park has a footprint of 88,750 hectares housing 33 small and big islands. The park and its near surrounding offering potential sources for water sports is suitable for day events and camping. Primary tree species in the national park are junipers, black pines, firs, cedars and oaks; while red partridges, quails, grey partridges, rabbits, weasels, wolves are major animal species; and carps, salmons, grey wrasses, seabass, pearl fish and ganoid fish constitute the major fish wealth.

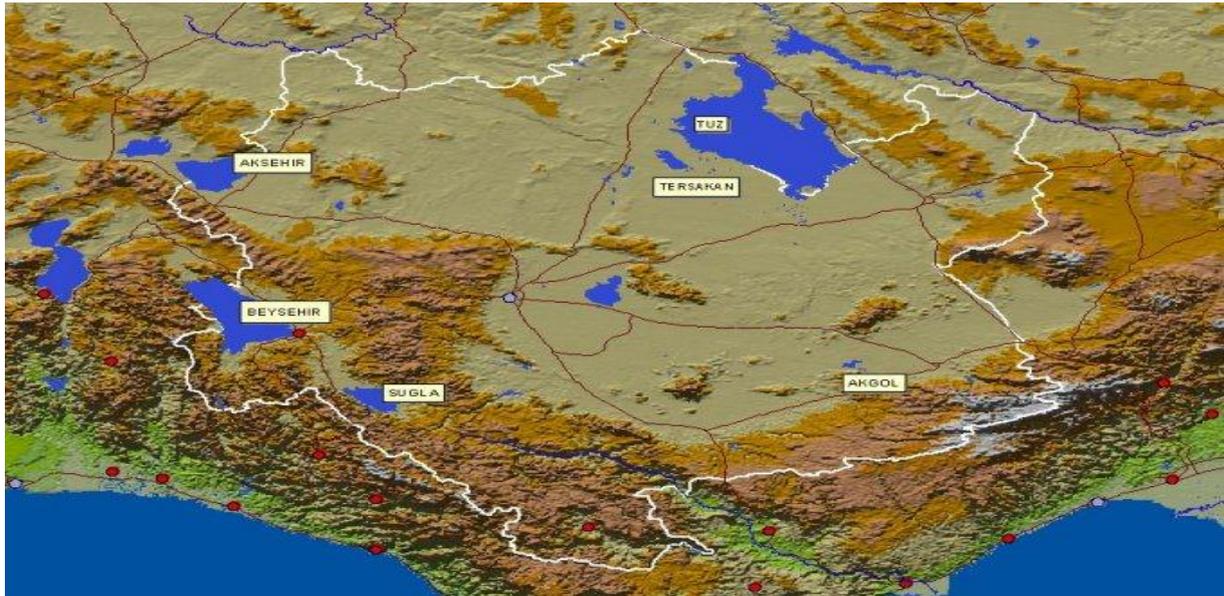
## **2.2. Climatic Characteristics and Vegetation**

Continental climate prevailing in the Central Anatolian Region is also predominant in Konya. High plains of Konya are characterized with cold winter and hot summer day whereas night time is cool. Sharp temperature difference between day and night accompanied with limited precipitation is another major climatic condition of the province. Precipitation occurs primarily in the form of snow. Konya is, to a large extent, stands as a closed basin. In the basin, low water stock associated with limited precipitation travelling down from mountains evaporates and vanishes.

In Konya located within the steppe belt of Central Anatolia with a predominant continental climate, natural vegetation is represented by steppes that is made up of herbaceous plants. Konya houses the Karapınar district that is one of the most arid regions of Turkey, and the provincial territory has commonly saline soil occupied by halophytes and bush

conglomerates on plain edges and mountain slopes. Moreover, as majority of the provincial territory is employed for agriculture, natural plants in these segments are already replaced by cultivated plants. Pastures and forages constituting great majority of the provincial territory have considerably diminished due to overgrazing.

Forests constituting almost 12% of the overall provincial territory are in the form of scrubs on plain edges and tall trees on the hills. The forest area is rather present on mountainous



**Map 1: Physical Map of Konya**

regions to the south of the province, and considerably rare on the northern part. Forests sheltering various tree species in the southern part of the province are composed of coppice forests. Black pines, junipers, aspens, poplars, cedars, abies, lebanon cedars, blue cedars, kasnak oaks, cyprus oaks, swamp oaks, hazel trees, turkish oaks, and scotch pines are common tree species in the forests of the region.

Source: Regional Forest Directorate of Konya

## **2.3. Natural Resources**

### **2.3.1. Mineral and Energy Resources**

Konya stands out as one of the prominent provinces of Central Anatolia in terms of mineral resources. Besides supreme aluminium (bauxite) and magnesite deposits of Turkey, the province also hosts coal, clay, cement raw materials, lead, zinc, barite minerals and substantial amount of ground water reserves. Lignite deposits recently discovered in

Karapınar (reservoir exploration and calculation efforts are in progress), represent key potential energy sources for Konya.

Though known presence of myriad of minerals with huge reserves in Konya, only bauxite, magnesite, barite and lignite stand out as significant minerals in terms of contribution to the provincial economy. Bauxite is the raw material of aluminium, and richest bauxite reserves of Turkey and the unique aluminium plant are located in the Seydişehir district of the province. The Seydişehir aluminium plant underwent a privatization, and the plant needs modernization, renovation and investments for capacity raising. The province hosts 8 bauxite deposits mined as an aluminium source in the province. Crucial bauxite reserves of the province are the Seydişehir-Morçukur and Doğanlı sites, housing 38 million tons of bauxite reserves with 50-69%  $Al_2O_3$  grade. Bauxite minerals in the Seydişehir region are rich enough, in terms of reserve and production standards, to satisfy the demand of aluminium plants for a long time, avoiding the need to bauxite import.

In Konya-Doğanhisar, ceramic (bonding) clay deposit with 900 thousand tons of reserve is currently being mined. Also there is a kaolinite and bentonite site with 6.9 million tons of reserve in Sağlık, and a clay site with 2 million tons of possible reserve in Ilgın.

The chromium-magnesite already installed in Konya employs magnesite stock of Çayırbağ and Meram. The region hosts 40 million tons of proved and 40 million tons of probable & possible magnesite reserves. Also in the region, Akşehir and Beyşehir districts accommodate barite deposits with 3 million tons of partially-mined proved, and 30 million tons of possible reserves. Sarayönü, Sızma and Ladik mercury sites mined in the past are also located in this region. Furthermore, Akşehir and Beyşehir regions host rich marble deposits, and in particular marble deposits in Beyşehir exhibit a significant potential.

Distribution and nature of mineral wealth in Konya is shown in Table 1.

**Table 1: Distribution and Nature of Mineral Wealth in Konya**

MINERAL TYPE	LOCATION	GRADE	RESERVE (tons)	REMARKS
Aluminium (Bauxite)	Seydişehir-Morçukur	50% Al <sub>2</sub> O <sub>3</sub> 6.40% SiO <sub>2</sub> 16.25% Fe <sub>2</sub> O <sub>3</sub> 2.55% TiO <sub>2</sub>	Total ore production to date: 6,335,720 tons Metal content of the deposit amounts 1,776,682 tons.	-
Aluminium (Bauxite)	Seydişehir-Kurna	53.53% Al <sub>2</sub> O <sub>3</sub> 11.9% SiO <sub>2</sub>	Total ore production: 67,500 tons Metal content of the deposit amounts 12.657 tons.	-
Aluminium (Bauxite)	Seydişehir-Kovacak	-		Currently mined
Aluminium (Bauxite)	Seydişehir-Ağaçyolu	66% Al <sub>2</sub> O <sub>3</sub> 6-11% SiO <sub>2</sub>	Total ore production: 300,321 tons Metal content of the deposit amounts 91.045 tons.	Currently mined
Aluminium (Bauxite)	Seydişehir-Doğankuzu	65-69% Al <sub>2</sub> O <sub>3</sub> 9-8% SiO <sub>2</sub>	Total ore production: 12599762 tons Metal content of the deposit amounts 3,863,128 tons.	-
Aluminium (Bauxite)	Seydişehir-Çatmakaya	-	Total ore production: 820,700 tons Metal content of the deposit amounts 254.414 tons.	-
Asbestos (Asb)	Bozkır-Dutlu	15-25% asbestos	4,646 tons of Proved+Probable Reserve	-
Copper-Lead-Zinc	Hadım-Kızılgemiş	25-30% Zn 0.1% Pb 0.1-0.3% Cd	200,000 tons of Proved+Probable Reserve	-
Copper-Lead-Zinc	Bozkır- Küçüksu site	25-30% Zn 3% Pb 0.1-0.3% Cd	48,000 tons of Probable Reserves	Mined in the past
Barite	Akşehir Site	90% Ba So <sub>4</sub>	3,000,000 tons of Proved Reserve 20,000,000 tons of Possible Reserve	-

**Table 1 (Cont'd)**

MINERAL TYPE	LOCATION	GRADE	RESERVE (tons)	OTHER DATA
Barite	Beyşehir Site	95.5% Ba So <sub>4</sub>	84,960 tons of Proved Reserve 13,064,000 tons of Probable Reserve	-
Barite	Doğanhisar-Fırınlık	96% Ba So <sub>4</sub>	100,000 tons of Proved+Probable Reserve	-
Barite	Karaman-Habipler	92.40% Ba So <sub>4</sub>	6,000 tons of Proved Reserve	-
Barite	Karaman-Alanözü	89.1% Ba So <sub>4</sub>	4,000 tons of Proved Reserve	-
Bentonite	Province Center-Sağlık	-	6,900,000 tons of Possible Reserve	Suitable for floor and wall tiles
Bentonite	Seydişehir-Çavuşköy	-	740.000 tons of Possible Reserve	Suitable for bleaching earth
Bentonite	Sille	-	24.000 tons of Possible Reserve	Raw material of floor tiles
Bentonite	Beyşehir-Doğanbey	-	3,098,000 tons of Possible Reserve	Raw material of bleaching soil
Bentonite	Akören-Çamaklar	-	1,825,383 tons of Proved Reserve	Suitable for bleaching soil
Mercury	Sille-Sızma	0.15-0.28% Hg	900,330 tons of Proved+Probable+Possible Reserve	Mined in the past
Mercury	Sarayönü-Kurşunlu, Ladik	0.15-0.2% Hg	21.478 tons of Possible Reserve	-
Mercury	Sarayönü-Ardıçlı	0.2% Hg	8.965 tons of Possible Reserve	-
Mercury	Ladik-Topraklı-Böğürme	0.179% Hg	40.000 tons of Possible Reserve	Mined in the past
Gypsum	Cihanbeyli-Yeniceoba	99% CaSo <sub>4</sub> 2H <sub>2</sub> O	not known	-
Kaolinite	Beyşehir-Damlapınar, Tocek Plateau	20-26% Al <sub>2</sub> O <sub>3</sub> 1.6-4% Fe <sub>2</sub> O <sub>3</sub>	2,136,188 tons of Proved Reserve	-
Clay	Ilgın-GVAurdağ, Sivritepe	30.26% Al <sub>2</sub> O <sub>3</sub> 2.64% Fe <sub>2</sub> O <sub>3</sub>	2,280,000 tons of Possible Reserve	-
Limestone	Ore deposit controlled by the Ilgın Sugar Refinery	98.2% CaCO <sub>3</sub>	23,625,000 tons of Probable Reserves	-

Limestone	Halkapınar-Kızılkaya	96.21-99.00% CaCO <sub>3</sub>	8,306,000 tons of Probable Reserves	-
Chromium	Çumra (Sudurköy, Küçükören)	35% Fe <sub>2</sub> O <sub>3</sub>	2,000 tons of Proved Reserve 1,000 tons of Probable Reserve	-
Chromium	Beyşehir-Kayabaşı	35-36% Cr <sub>2</sub> O <sub>3</sub>	20,000 tons of Proved+Probable Reserve	-
Sand-Gravel	Province Centre-Kayacık Village	Construction and stabilizing materials	not known	-
Sand-Gravel	Sille-Sille Brook	Construction and road materials	Ore deposit hosting minor reserve	-
Sand-Gravel	Akşehir-Maruf Village	Medium	High potential	-
Sand-Gravel	İlgin-Cemedek	Construction and stabilizing materials	High potential	-
Sand-Gravel	Ereğli-Hortu Village	Good	Potential	-

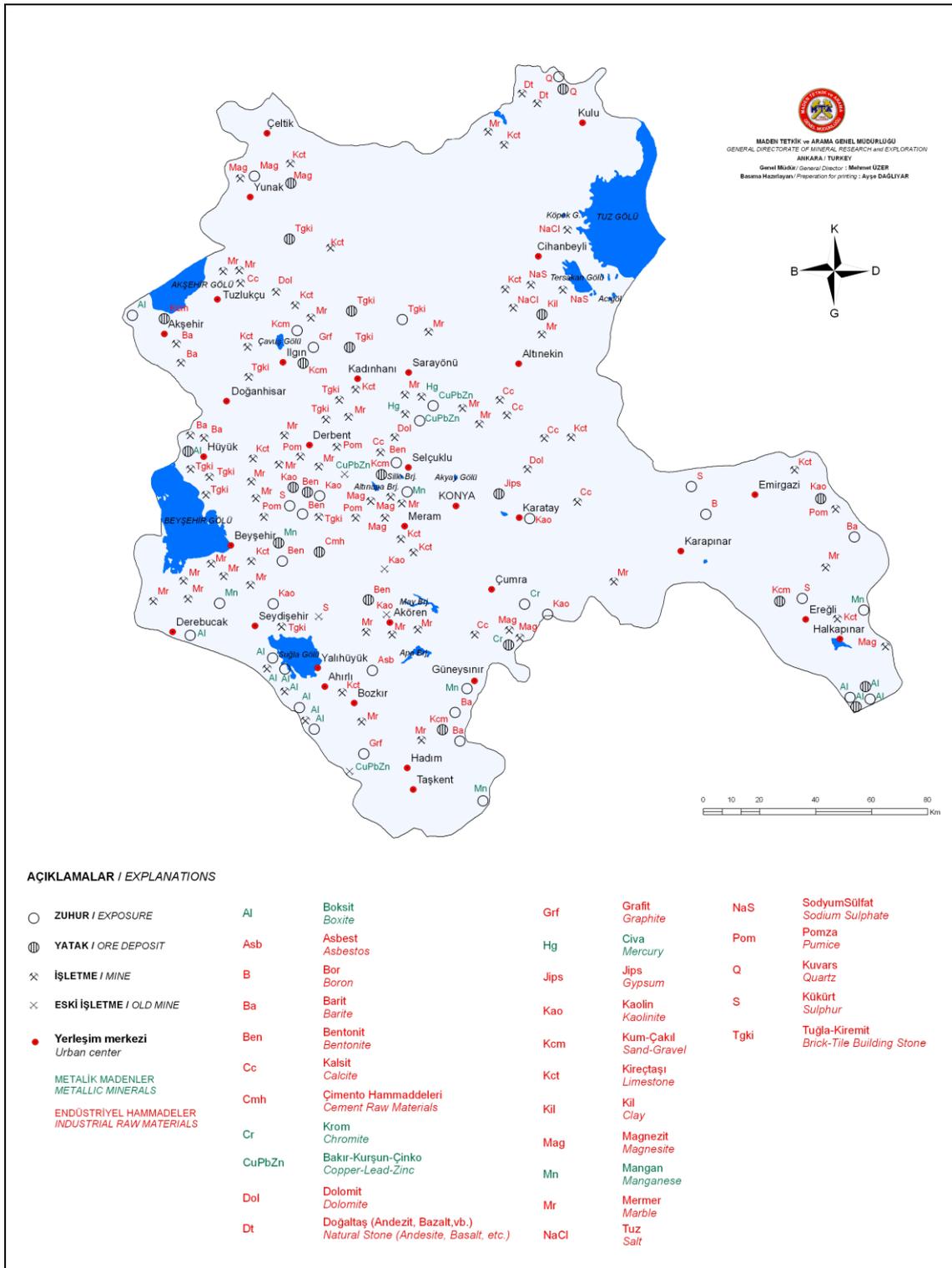
**Table 1 (Cont'd)**

MINERAL TYPE	LOCATION	GRADE	RESERVE (tons)	OTHER DATA
Magnesite	Province Centre (Çayırbağ-Kazanardıç)	46-47% MgO	842,000 tons of Proved Reserve 3803639 tons of Probable Reserve	-
Magnesite	Çayırbağ (Küçükincesi, Bacağın Kayak Deposits)	-	18.000 tons of Possible Reserve	-
Magnesite	Çayırbağ Keklikpınarı Deposit	-	842,804 tons of Proved Reserve 462,547 tons of Probable Reserve 738.369 tons of Possible Reserve	-
Magnesite	Çayırbağ (Beşagılın Brook, Belikmeşe)	46% MgO	199,243 tons of Proved Reserve 2,092 tons of Proved+Probable Reserve	-
Magnesite	Meram Kırankaya Deposit	46.97% MgO	3078767 tons of Proved Reserve 4,930,511 tons of Probable	-

			Reserve 13,664,119 tons of Possible Reserve	
Magnesite	Yunak Meşelik and Karataş Deposits	45-47% MgO	158,591 tons of Proved Reserve 159,352 tons of Probable Reserve	-
Magnesite	Meram Kırankaya Deposit	45.8% MgO	3,273,714 tons of Proved Reserve 7,590,236 tons of Probable Reserve 7,872,621 tons of Possible Reserve	are mined.
Magnesite	Meram (Rüştübey)	45.8% MgO	998,750 tons of Proved Reserve 1,719,888 tons of Probable Reserve 7,494,871 tons of Possible Reserve	are mined.
Magnesite	Ereğli-Delimahmutlu	44.3% MgO	60,600 tons of Proved+Probable Reserve 249,660 tons of Potential Reserve	-
Marble	Akşehir- Akşehir black	-	36,000,000 m <sup>3</sup>	Marbles being and black in colour contain white calcite veins and brown chiolites. Hardness 4, Density 2.72g/cm <sup>3</sup> , porosity 0.4%
Talcum	Ereğli (Ayrancı-Melikli, Üçarman)	53-57% SiO <sub>2</sub> 25-25.40% MgO %7 Fe <sub>2</sub> O <sub>3</sub>	Zuhur	-
Brick-Tile	Sarayönü, Beyşehir, Kadınhanı	Good	50,000,000 tons of geological assets	-

Source: General Directorate of Mineral Research and Exploration (MTA), April 2012

Map 3: Mineral Map of Konya Province



Source: General Directorate of Mineral Research and Exploration (MTA), April 2012

In addition to these mines, there are various lignite sites within the province, in particular the Beyşehir, Seydişehir, Ilgın, Ermenek and Karapınar districts. Around 10% of total lignite reserves of Turkey is housed by this region. Lignite stock in the region is employed by

thermal power plants and for heating purposes. Proved reserves of lignite stock in quality grade of 1,108 kcal/kg and 1,155 kcal/kg in Beyşehir-Karadiken and Aydıncık lignite sites amount to 107 million tons for Karadiken and 52 million tons for Aydıncık. There are also 59.9 million tons of proved reserves and lignite formations in quality grade of 1,083 kcal/kg in the Seydişehir-Akçalar site. The Ilgın-Haramiköy and Kurugöl lignite sites are other prominent lignite sources of the province. Quality grade of lignite stock employed for heating purposes is 2,239 kcal/kg in Haramiköy and 2,180 kcal/kg in Kurugöl, and total proved reserve of these sites sum 21.3 million tons. With its 1.28 billion tons of reserve, the Karapınar lignite site recently discovered by MTA proves the quality of potential contribution to the energy generation of thermal power plants. Lignite sites discovered in the district are shown in Table 2.

**Table 2: Distribution and Nature of Lignite Wealth in Konya**

Location	Reserve (1.000 tons)				Total	KCal/kg	Status
	Proved	Probable	Possible	Potential			
Beyşehir-Karadiken	107,000	-	-	-	107,000	1,108	Surface Mining
Beyşehir-Aydancık	52,000	-	-	-	52,000	1,155	Surface Mining
Beyşehir-Aydancık	-	80,000	-	-	80,000	1,282	Underground mining
Seydişehir-Akçalar	59,000	-	-	-	59,000	1,083	Surface Mining
Seydişehir-Akçalar	-	10,000	-	-	10,000	1,430	Underground mining
Akburun-Eğirler	-	-	-	140,000	140,000	700	Underground mining
Ilgın-Haramiköy	12,269	763	-	-	13,032	2,239	Surface Mining
Ilgın-Kurugöl	9,142	-	-	-	9,142	2,180	Surface Mining
Ermenek-Boyalık	-	1,700	-	-	1,700	3,262	Surface & Underground Mining
Ermenek-Tepebaşı	2,010	3,908	-	-	5,918	4,063	Surface & Underground Mining
Karapınar	530,000	250,000	500,000	Mining Active	1,280,000	1,300 2,100	Surface Mining
<b>TOTAL</b>	<b>771,421</b>	<b>346,371</b>	<b>500,000</b>	<b>140,000</b>	<b>1,757,792</b>	-	-

Source: General Directorate of Mineral Research and Exploration (MTA), April 2012

Another underground wealth of Konya is the geothermal springs. The geothermal spring in the Ilgın district is at a temperature of 40°C and has a flow of 30 l/sec. Temperature of water extracted by means of boring has a temperature range of 41.6-42°C and flow of 160 l/sec.

The spring is employed for heating thermal baths and the residential area in near vicinity of the spring. The geothermal spring in Ilgın's Çavuşçugöl is at a temperature of 30°C and has a flow of 10.5 l/sec. It is employed as a thermal bath. The geothermal spring in Beyşehir's Köşkköy is at a temperature of 35°C and has a flow of 7.1 l/sec. Boring into the spring reveals a flow reaching 11 l/sec. The spring is also employed for thermal bath purposes. In addition, it is utilized by thermal facilities built on the hot water spring in Ismil. Hüyük-Çavuşköy, Cihanbeyli, Ereğli-Kükürtlü and Seydişehir stand among other regions hosting geothermal springs.

**Table 3: Geothermal Energy Sources in Konya**

Geothermal Area	Temperature (°C)	Flow (l/sec)	Field of Use	Installed Facility
ILGIN	40	30	Thermal bath, thermal bath facility, residential heating	Thermal bath
ILGIN- Çavuşçugöl	25.5-29	10.5	Thermal tourism	Thermal hotels
BEYŞEHİR- Köşkköy	35	7.1	Thermal Bath	Thermal bath
BEYŞEHİR- Yeşildağ	35.1	0.25	-	-
TUZLUKÇU	46	60	Thermal tourism	-
DEMİRKENT- İsmil	42-42.7	100	Thermal tourism	Thermal hotels
HÜYÜK- Çavuşköy	25-26	4	Thermal Bath	-
CİHANBEYLİ	29-33	1.7	Thermal tourism	-
EREĞLİ- Kükürtlü	28	0.45		-
SEYDİŞEHİR	27.1-32.1	1.8	Thermal tourism	-

Source: General Directorate of Mineral Research and Exploration (MTA), April 2012

### 2.3.2. Water Sources

Total water stock around the globe is 1.4 billion km<sup>3</sup> and countries may be classified by water poverty (available annual water stock per capita is less than 1,000 m<sup>3</sup>), water shortage (available annual water stock per capita is less than 2,000 m<sup>3</sup>) and water wealth (available annual water stock per capita is 8,000 m<sup>3</sup>-10,000 m<sup>3</sup>). Annual available water stock per capita in Turkey is 1,652 m<sup>3</sup>, classifying Turkey as a country suffering water shortage.

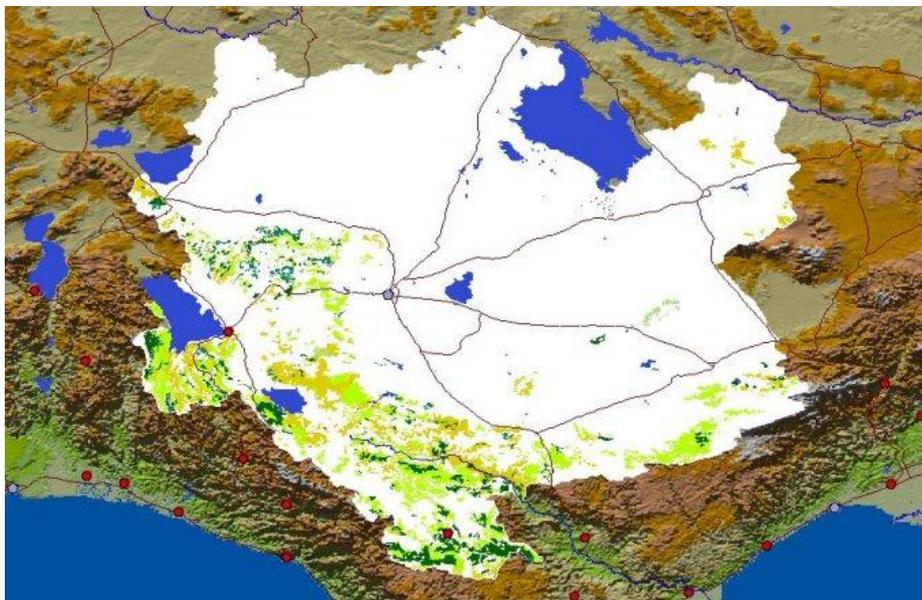
Total water potential of Turkey is calculated in gross terms, revealing a gross surface water potential of 193 billion m<sup>3</sup> and groundwater surface potential of 41 billion m<sup>3</sup>, summing 234 billion m<sup>3</sup> of gross potential. Total water potential of the TR52 Level 2 Region is 6,4 billion m<sup>3</sup>, accounting for 2.7% of total annual water potential of Turkey. An insight into provinces within the TR52 Region reveal that Konya has a water potential of 4.4 billion m<sup>3</sup> and Karaman 2.0 billion m<sup>3</sup>. Breakdown of the water potential of Konya is such that 2.9 billion m<sup>3</sup> is surface water stock and 1.5 billion m<sup>3</sup> is groundwater stock.

As is shown, while Turkey is globally classified as a country with water shortage, the Konya region similarly has a limited contribution to the overall water potential of the country, reflecting the fact that water is a very valuable scarce source for the region. Therefore, proper conservation of water sources in the region and ensuring optimum water use are of great essence. Paucity of precipitation in the Konya Plain where continental climate prevails requires external irrigation for agricultural purposes. Irrigation water sources in the region are surface and groundwater water stocks. Groundwater is extracted from wells drilled by State Hydraulic Works (SHW), Irrigation Societies and farmers. On the other hand, surface water sources are the Beyşehir Lake and the Çarşamba Creek. In the province accommodating gradually increasing number of fields assigned to irrigated farming, rational and well-balanced consumption of water sources is poor. In fields of irrigation, water distribution planning and operation should be improved in favour of controlled irrigation.

### **2.3.3. Forest Areas**

Western and Central Taurus Mountains enclosing the provincial territories of Konya from the south, south west and south east are quite rich for species and forest wealth. Other segments of the province fall within the steppe belt of Central Anatolia and are covered by steppe plants. Forest wealth of the province rather falls in the Taurus mountains. Normal (fertile) forest and degraded forest area in the province sums 492,829.5 hectares, occupying 12.6% of the provincial territory. Having regard to the fact 27.2% of the whole Turkish territory is accounted for by forest areas, it is evident that the province is considerably poor in terms of forest wealth.

**Map 4: Map of Forest Wealth in Konya**



**Table 4: Forest Areas in Turkey and the Region (Ha)**

	Normal Forest Area	Degraded Forest Area	Total Forest Area	Overall Area	Forest Area/Overall Area (%)
Konya	138,907.5	353,922.0	492,829.5	3,899,567.5	12.6
Karaman	57,716.5	172,066.5	229,783.0	815,350.0	28.2
TR52	196,624.0	525,988.5	722,612.5	4,714,917.5	15.3
Turkey	10,621,221.0	10,567,526.0	21,188,747.0	780,576,000.0	27.2

Source: General Directorate of Forest, April 2012

71.8% of the forest wealth in Konya is degraded forest areas whereas 28.2% accounts for normal forest areas. Starting from the ridges of plains in Konya, brush formations and then forest field follow. Tree species constituting the forest wealth are black pines, junipers, aspens, poplars, cedars, lebanon cedars, blue cedars, kasnak oaks, cyprus oaks, swamp oaks, hazel trees, turkish oaks, abies and plantation-based scotch pines. Some sections of forest fields have designated and conserved as "Natural Forest Areas". Konya has been undergoing afforestation since 1981 with the aim of both enhancing the forest wealth and improving degraded forest areas.

### **3. INFRASTRUCTURE**

#### **3.1. Transport Infrastructure**

##### **3.1.1. Highways**

Konya is a passageway accommodating key highways between north and south, and east and west. The provincial centre of Konya has been a crucial centre of trade and accommodation throughout the history thanks to its vital geographical situation.

Highways passing from the provincial centre towards northern, north western, western, southern and north eastern directions link Konya to other provinces. Of them, while the Konya-Afyonkarahisar; Eskişehir-Bursa-Istanbul, and Konya-Ankara motorways link the province to Ankara and other north western provinces, the Konya-Aksaray motorway links to Nevşehir and north eastern provinces, and the Konya-Beyşehir motorway extending to the west link to Izmir through the Ispart-Denizli-Aydın route. The Konya-Karaman motorway to the south is the major transport route to Mersin and Adana. Furthermore, the highway linking to the Ankara-Adana motorway through Ereğli serves as a critical transport network linking to both Adana and south eastern provinces as well as to Black Sea provinces through

Kayseri. The Konya-Seydişehir motorway put into service in 1996 is the shortest route linking Konya and the whole Central Anatolia to southern coasts.

The motorway network throughout the province sums 10,282 km as accounted for by 1,421 km of state road, 1,631 km of provincial road and 7,230 km of rural road. Konya stands as the province with the biggest share (3,052 km) within the State and Provincial Roads Network of the General Directorate of Highways. No motorway is available in the TR52 region of Level 2.

**Table 5: Highway Network in Turkey and the Region**

	State Road	Provincial Road	Rural Road	Total
Konya	1,421	1,631	7,230	<b>10,282</b>
Karaman	245	408	1,915	<b>2,568</b>
TR52	1,666	2,039	9,145	<b>12,850</b>
Turkey	31,372	31,558	302,398	<b>365,328</b>

Source: General Directorate of Highways for state and provincial roads; TSI for rural roads

**Map 5: Highway Transport Map for the TR52 Level 2 Region**



Source: General Directorate of Highways

Distances from the provincial centre of Konya to other districts and some other provincial centres are provided in Table 6.

**Table 6: Distances from the Provincial Centre to Other Districts and Other Prominent Provincial Centres**

Province	Distance (km)	District	Distance (km)	District	Distance (km)
Adana	356	Ahırlı	134	Güneysınır	76
Afyonkarahisar	223	Akören	35	Hadim	120
Aksaray	148	Akşehir	132	Halkapınar	168
Ankara	258	Altınekin	57	Hüyük	127
Antalya	323	Beyşehir	92	İlgın	87
Burdur	315	Bozkır	119	Kadınhanı	60
Bursa	484	Cihanbeyli	97	Karapınar	96
Eskişehir	336	Çeltik	219	Kulu	149
Isparta	264	Çumra	48	Sarayönü	50
Istanbul	665	Derbent	80	Seydişehir	134
İzmir	546	Derebucak	140	Taşkent	134
Kayseri	327	Doğanhisar	122	Tuzlukçu	160
Mersin	343	Emirgazi	136	Yalıhüyük	166
Niğde	255	Ereğli	145	Yunak	189

The dual carriageway projects constructed by the General Directorate of Highways including the Konya-Ankara motorway, Konya-Karaman motorway, Konya-Akşehir-Afyon provincial border road, Konya-Ereğli-Ulukışla fork, Konya-Aksaray motorway, Konya-Seydişehir motorway and Konya-Beyşehir motorway are in progress. Once the construction of these projects is complete, transport to other cities shall be faster and safer. Completion of in particular the Ankara-Pozantı Motorway shall bring great convenience in linking the region to Şanlıurfa, Diyarbakır, Ankara and Istanbul.

### **3.1.2. Railways and Logistics Centre**

Offering railway transport besides highway transport, the province accommodates a 590 km of railway network within provincial boundaries as of 2010. Of the overall 9,594 km of railway network nationwide, Konya accounts for 6.1%. Total railway network covered by the TR52 Level 2 Region is 696 km, representing 7.3% of the overall Turkish railway length

**Table 7 :Total Railway Run in Turkey and the Region**

	Railway (km)	Share (%)
Konya	590	6.1
Karaman	106	1.1
TR52	696	7.3
Turkey	9,594	100.0

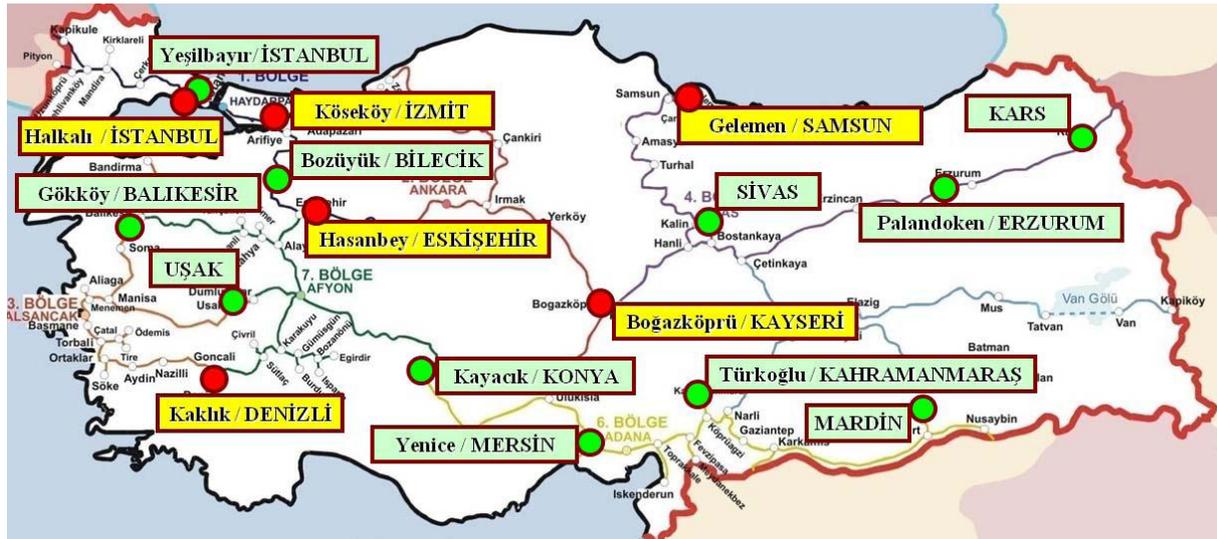
Source: TSI, April 2012.

The railway network linking the south and south east to western provinces and Istanbul is hosted by the Karaman province of the TR52 Region. Inbound and outbound railway transport in Konya is provided through the High Speed Train (Konya-Ankara), the Taurus Express (Istanbul-Konya-Gaziantep), Central Anatolian Blue Train (Ereğli-Konya-Istanbul) and the Meram Express (Istanbul-Konya) lines. Since load and passenger transport on current railways takes much time, the Ankara-Konya fast train line has been put into service to provide faster transport to major cities such as Ankara, Istanbul and Izmir.

Konya has been involved in the scope of the logistic centres project implemented by Turkish State Railways, where restructuring the Kayacık site as a logistic centre is concerned. Logistic centres are defined as areas where different operators and carriers undertake national and international load transport, distribution, storage and other associated services. Logistic centres offering storage and transport services supported with means of combined transport by highway, railway, seaway and also airway progressively gain significance. Logistic centres are established by Turkish State Railways throughout the country at 16 different modern railway stations located at city centres of various scale tailored in line with technological and economic developments and capable of satisfying demands to load logistics on areas preferable by customers offering effective means of highway transport. The construction of the Konya-Kayacık Logistics Centre has been started by virtue of the Cabinet decision published in the Official Gazette no 27946 of 27.05.2011. With the Konya-Kayacık Logistics Centre put into service, existing warehouses and storages in the city will be moved to the uptown area accompanied with the construction of integrated and modern facilities at logistics centres for transport and storage purposes. Process of expropriating the 70,000-sqm area within the Kayacık Logistics Centre is in progress, and will bring giant economic and commercial advantages in the province once the investment is complete.

Furthermore, Turkish State Railways (TSR) pursues the scheme, under the urban transformation project, of designating TSR areas at the Konya railway station as "TSR Special Project Area", moving operations except for passenger transport off the station and assigning forwarding operations to the Kayacık Logistics Centre.

Map 6: Logistics Centres of Turkey



Source: Turkish State Railways

### 3.1.3. Airlines

There is a military-civil airport in Konya. Serving as a border gate to international traffic, the airport is 20 km far from the city centre. The facility operated as a military-civil airport since 29.10.2000 hosts Konya-Istanbul-Konya scheduled flights on daily basis to serve to growing mass of passengers accompanied with buoyant demand.

## 3.2. Energy

### 3.2.1. Electricity Energy

Energy consumption in Konya as of 2010 amounts to 4,776,247 MWh, accounting for 2.8% of overall energy consumption in Turkey. Energy consumption in overall Turkey and Konya displayed an increase in 2010 compared to 2009 by 9.7% and 21.9% respectively. Energy consumption per capita in Konya as at 2010 is 2,371 khw, outdistancing the overall national energy consumption per capita of 2,333 khw.

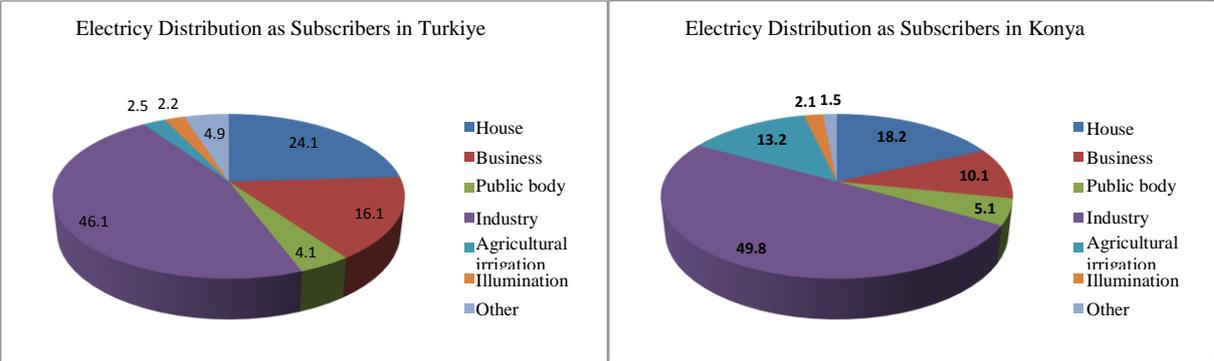
Breakdown by subscriber of overall energy consumption in Konya as from 2010 reveals that highest energy consumption occurs in the industrial side with 49.8% followed by 18.2% in residential units, 13.2% in agricultural irrigation, 10.1% in businesses, 5.1% in public agencies, 2.1% in lighting sector and 1.5% others.

**Table 8: Energy Consumption in the Province vs Overall Consumption in Turkey and TR52 Level 2 Region**

Subscriber	2009			2010			Share (%)	
	Turkey	TR52 Region	Konya	Turkey (1)	TR52 Region (2)	Konya (3)	3/1	3/2
	Residential Units	39.148	900	808	41.411	966	869	2.1
Businesses	25.019	441	407	27.732	537	482	1.7	89.8
Public institution	6.990	247	222	7.102	251	241	3.4	96.0
Industry	70.470	1.864	1.703	79.331	2.534	2.377	3.0	93.8
Agricultural Irrigation	3.661	734	608	4.360	747	632	14.5	84.6
Lighting	3.845	114	97	3.768	117	102	2.7	89.5
Other	7.761	83	73	8.347	110	74	0.9	66.9
<b>TOTAL</b>	<b>156.894</b>	<b>4.383</b>	<b>3.919</b>	<b>172.051</b>	<b>5.258</b>	<b>4.776</b>	<b>2.8</b>	<b>90.8</b>

Source: TSI, Türkiye Elektrik Dağıtım A.Ş.

**Chart 1: Breakdown of Energy Consumption by Subscribers**



Breakdown of overall energy consumption of Turkey by subscribers reveals that industrial consumption is ranked the first with a share of 46.1% followed by residential units (24.1%), businesses (16.1%), other consumers (4.9%), public institutions (4.1%), agricultural irrigation (2.5%) and lighting industry (2.2%). Agricultural irrigation represents the deepest distinction between the overall consumption in the country and consumption in Konya. In the province accommodating substantial cultivated lands on its vast territories, energy utilized in agricultural irrigation is ranked the third in provincial classification, and sixth in overall national classification.

There are 13 energy generation plants in Konya. Of them 4 are hydraulic plants and 9 are thermal plants. 12 of the power generation plants are already in operation. Of them, 4 are producer corporations and 8 are autoproducer plants. The Çumra Thermal Power Plant is currently in the investment stage and shall be put into operation as a autoproducer plant.

Also there are 6 hydraulic power plants in Karaman. All of these power plants are producer corporations. Of them 4 are currently in operation, and 2 are at the commissioning phase.

**Table 9: Power Plants in the TR52 Level 2 Region**

Province	Plant	Source	Unit Power (MW)	Status	Type
Konya	Göksu HEPP	Hydraulic	3*4.4	In operation	Producer corporation
Konya	İvriz HEPP	Hydraulic	2*0.5	In operation	Producer corporation
Konya	Dere HEPP	Hydraulic	2*0.25	In operation	Producer corporation
Konya	Bozkır HEPP	Hydraulic	2*0,075	In operation	Producer corporation
Konya	Alkim Kimya	Thermal	2.208	In operation	Autoproducer
Konya	Eti Alüminyum	Thermal	11.9	In operation	Autoproducer
Konya	Kombassan	Thermal	5.5	In operation	Autoproducer
Konya	Ereğli Şeker	Thermal	10.4	In operation	Autoproducer
Konya	Ilgın Şeker	Thermal	14.4	In operation	Autoproducer
Konya	Konya Şeker	Thermal	17.4	In operation	Autoproducer
Konya	ITC-KA Aslım E.	Thermal	56.6	In operation	Autoproducer
Konya	Selva Gıda	Thermal	1.712	In operation	Autoproducer
Konya	Çumra Thermal PP	Thermal	37	At investment phase	Autoproducer
Karaman	Kepezkaya	Hydraulic	28	In operation	Producer corporation
Karaman	Damlapınar	Hydraulic	16.4	In operation	Producer corporation
Karaman	Balkusan	Hydraulic	38.8	In operation	Producer corporation
Karaman	Ermenek HEPP	Hydraulic	2*0.5	In operation	Producer corporation
Karaman	Günder HEPP	Hydraulic	28.8	Ready for operation	Producer corporation
Karaman	Ermenek HEPP	Hydraulic	300	At testing phase	Producer corporation

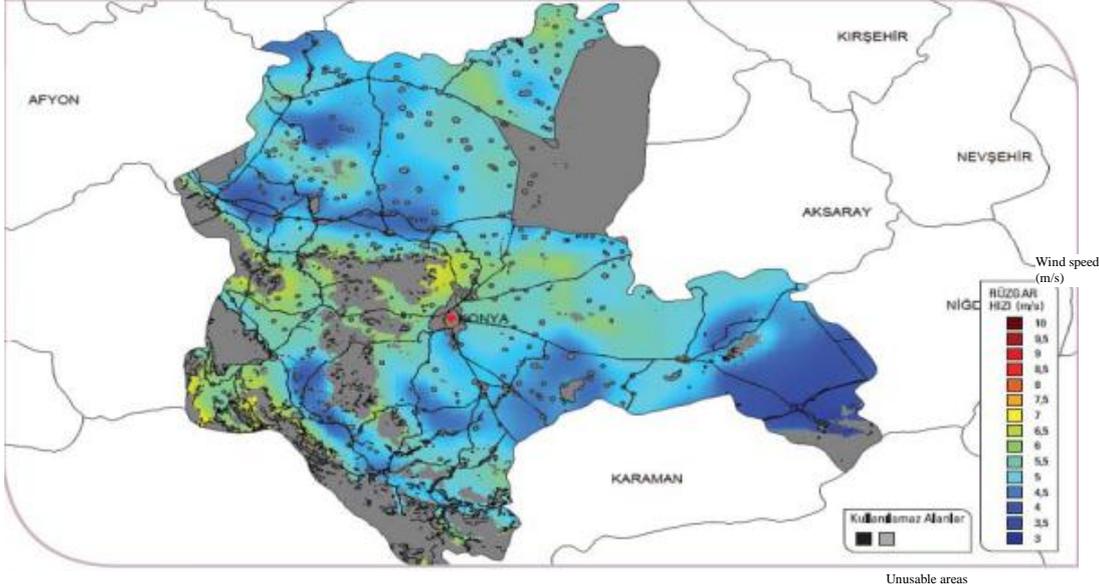
Source: TEİAŞ, 9. Energy Transmission and Operation Group Management

### 3.2.2. Wind Power

Efforts have been made by the Electrical Power Resources Survey and Development Administration (EPWSDA) and the Selçuk University to figure out the potential of the wind power (WIP), one of the renewable alternative energy sources, prevailing in Konya. A cost-effective WIP investment requires a wind power above 7 m/s and a capacity factor of 35% or

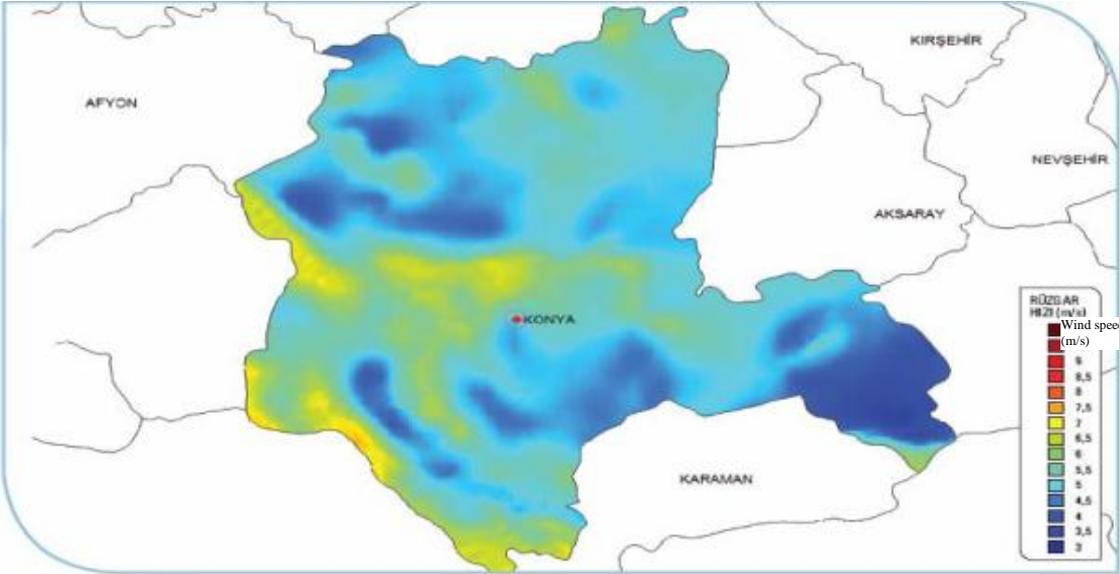
more. Maps elaborated by EPWSDA based on these constraints showing the wind speed distribution and areas suitable for the erection of wind power plant for Konya are provided below.

**Map 7: Wind Speed Distribution for Konya**



Source: Electrical Power Resources Survey and Development Administration

**Map 8: Areas Suitable to Erect Wind Power Plant in Konya**



Source: Electrical Power Resources Survey and Development Administration

Sites available for the utilization of wind power in Konya have been identified as the provincial centre, Seydişehir, Derebucak, Taşkent and Akşehir districts. According to

calculations, potential area available for the erection of a Wind Power Plant (WPP) is 372 km<sup>2</sup> and total potential installed power is 1,860 MW (Table 10).

**Table 10: Potential WPP Capacity for Konya**

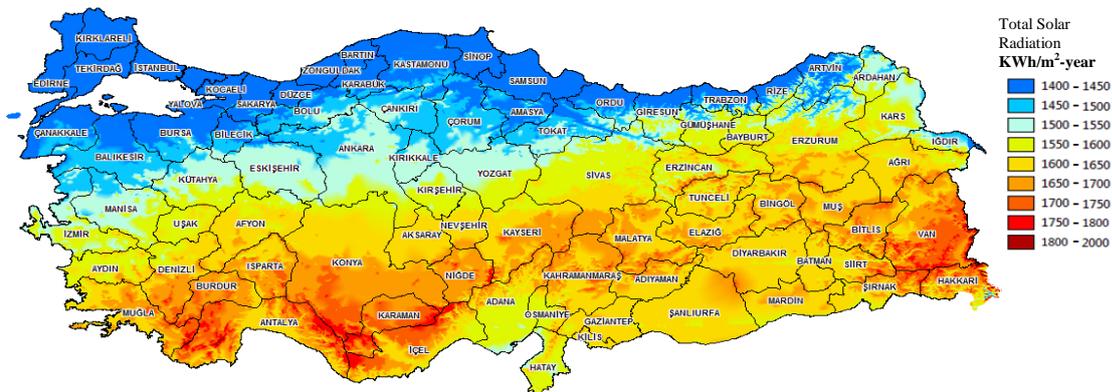
Wind Power in 50 m <sup>2</sup> (W/m <sup>2</sup> )	Wind Power in 50 m (W/s)	Total Area (km <sup>2</sup> )	Total Installed Power (MW)
300-400	6.8-7.5	320.98	1,604.88
400-500	7.5-8.1	46.72	233.60
500-600	8.1-8.6	4.32	21.60
600-800	8.6-9.5	0.00	0.00
800+	9.5+	0.00	0.00
<b>Total</b>	-	<b>372.02</b>	<b>1,860.08</b>

Source: Electrical Power Resources Survey and Development Administration

Significant factors in investments for wind power plants are the wind potential and the suitable nature of the project site as well as the connectivity of the project to the interconnected system. Investments should also consider, besides wind potential, the means of connection for the region to the system.

### 3.2.3. Solar Energy

Turkey is a fruitful country in terms of solar energy potential with its most productive regions being close to the south. Physical location of the site on earth and climatic conditions are the criteria that should be considered in assessing whether the solar energy potential justifies the investment. In Map 8, the Turkish Solar map indicating the sunshine potential of Turkey by region and province is provided.

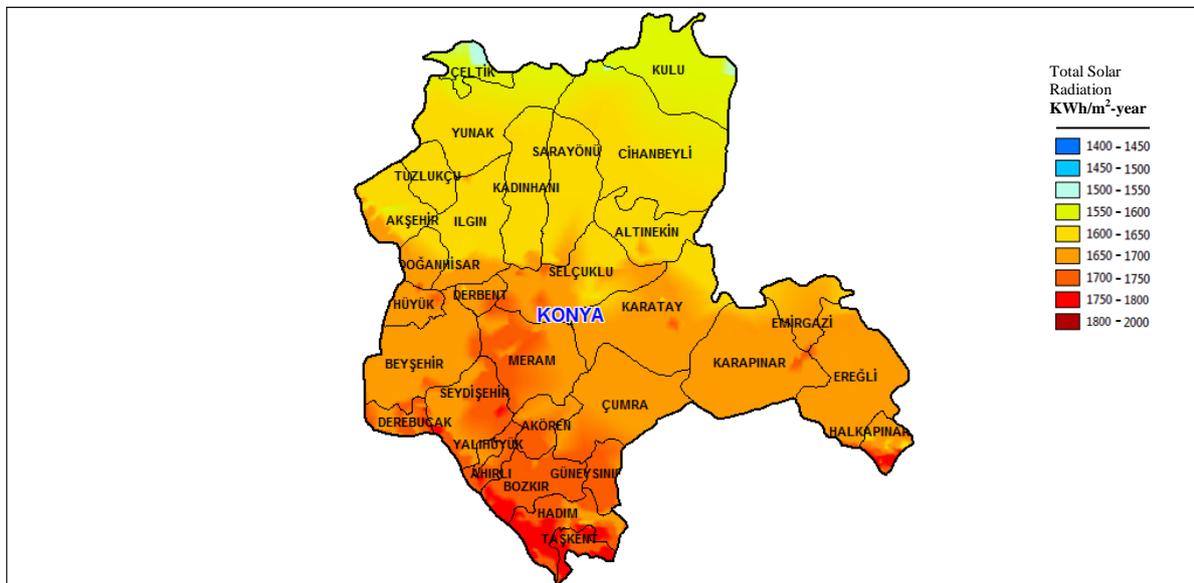


**Map 9: Solar Map of Turkey**

Source: Electrical Power Resources Survey and Development Administration

Total average annual sunshine duration of Turkey is 2,741 hours. It is 2,902.5 hours for Konya and 3,011.4 hours for Karaman, demonstrating that both provinces outdistance the Turkish average. The TR52 Level 2 Region stands out as one of the regions of Turkey boasting most significant potential for solar energy investments. The decision proclaimed by the Ministry of Energy and Natural Resources and subsequently published in the Official Gazette of 08.01.2011 addresses regions eligible for license on investments for power generation from solar energy subject to a capacity limitation of 600 MW until the end of 2013. Total of 27 regions have been granted by the investment permit, and of them, Konya holds the maximum number of permits. A total of 13 substation centres have been addressed for Konya, and 92 MW out of total investment capacity of 600 MW has been allocated to Konya. And 3 substation centres have been addressed for Karaman with an allocated investment capacity of 38 MW. Hence, the TR52 Region enjoys a share of 22% in the overall set of licenses to be granted for investments on power generation from solar energy until the end of 2013 in Turkey. Thanks to its high plain, smooth and non-arable capacity, Konya stands out as a major centre of attraction for investments on power generation from solar energy.

**Map 10: Solar Atlas for Konya**



**Source:** Electrical Power Resources Survey and Development Administration

Particularly the Karapınar region of Konya accommodates vast and non-arable lands. Based on the collective assessment of criteria decisive on designating a region for solar energy

investments, the Karapınar district is one of the regions of Turkey with highest investment potential. "According to the Feasibility Study Report on Establishing an Energy-Specialized Industrial Region for Investments for Power Generation Plants Based on Solar Energy in the Karapınar District", the latter located to the south of Konya and accommodating vast lands boasts a high potential in terms of both insolation quality and the land stock. In such feasibility study, the Karapınar Region is compared to the Bavarian Region of Germany with highest solar energy investments, and the result is that Karapınar has better values particularly in terms of solar radiation according to the criteria for assessing power generation from solar energy.

**3.3. Socio-Economic Infrastructure**

**3.3.1. Population**

Konya is one of the biggest provinces of Turkey in terms of population size. According to the results of the Address-Based Population Registration System (ABPRS) for 2011, the population count of the province was 2,038,555, accounting for 2.73% of the overall national population and 89.7% of the TR52 Level 2 Region. The province is ranked the seventh in the population classification of provinces throughout the country, and first throughout the region. Konya has a surface area of 38,257 km<sup>2</sup> with 53 persons per kilometre square. Annual growth rate of Konya's population during the period 2010-2011 is 12.20‰. Given the overall population growth rate of 13.49‰ for Turkey, the figure province is lower than statistics.

**Table 11: National and Provincial Population & Annual Growth Rate of Population according to ABPRS**

Year	Turkey (1)		Konya (2)		Share (%) (2) / (1)
	Population	Growth Rate (%) (*)	Population	Growth Rate (%) (*)	
2007	70,586,256	-	1,959,082	-	2.78
2008	71,517,100	13.10	1,969,868	5.49	2.75
2009	72,561,312	14.50	1,992,675	11.51	2.75
2010	73,722,988	15.88	2,013,845	10.57	2.73
2011	74,724,269	13.49	2,038,555	12.20	2.73

(\*) : includes Annual Population Growth Rate  
Source: TSI

While the overall Turkish population as at 2011 is accounted for by male at a rate of 50.2% and female at a rate of 49.8%, Konya hosts a male and female population of 49.5% and 50.5% respectively. The population pyramids for Konya and Turkey reveal that the age group

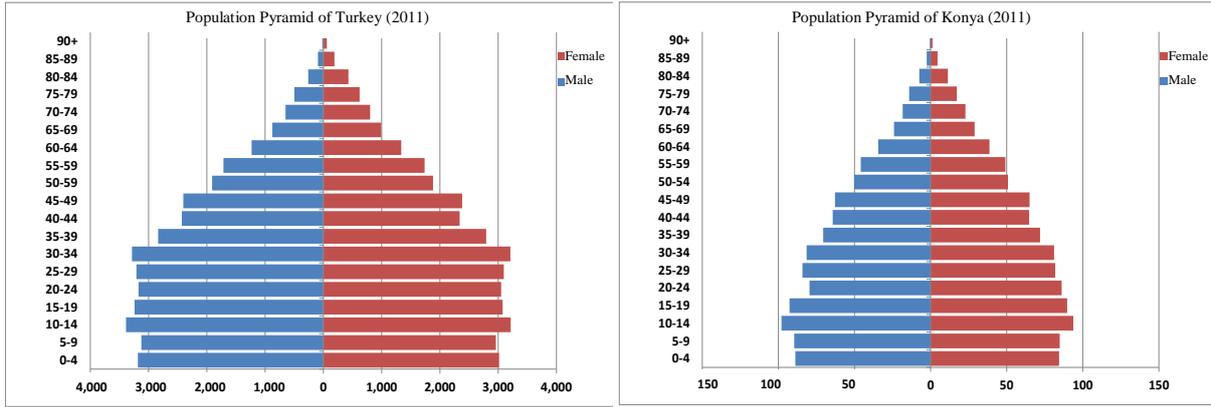
10-14 holds the greatest share in the overall population of Konya and Turkey. For Konya, the age group 15-19 is ranked the second, 5-9 age group is ranked the third, the 0-4 age group is ranked the fourth, and the 25-29 age group is ranked the fifth. As to Turkey, the age group 30-34 is ranked the second, 15-19 age group is ranked the third, the 25-29 age group is ranked the fourth, and the 20-24 age group is ranked the fifth. As is evident, the teen age group at primary education level and the working age group constitute significant majority of population nationwide. In contrary, teen age group at primary education level and the pre-teen age group constitute great majority of population while working age group come after the pre-teen and student age groups. An analogy develops between Turkey and Konya towards upper segments of the population pyramid.

**Table 12: Ranking Population by Age Groups (2011)**

Age Group	Turkey		Konya	
	Population	Age Group Rank	Population	Age Group Rank
0-4	6,199,824	6	173,324	4
5-9	6,084,146	7	174,467	3
10-14	6,602,605	1	191,833	1
15-19	6,317,583	3	182,493	2
20-24	6,224,591	5	165,779	6
25-29	6,306,233	4	166,163	5
30-34	6,495,634	2	162,690	7
35-39	5,632,742	8	142,457	8
40-44	4,770,774	10	129,016	9
45-49	4,786,084	9	127,900	10
50-54	3,792,436	11	101,088	11
55-59	3,454,415	12	95,023	12
60-64	2,566,487	13	73,134	13
65-69	1,868,175	14	52,973	14
70-74	1,451,368	15	41,234	15
75-79	1,118,310	16	31,272	16
80-84	688.840	17	18,777	17
85-89	284.594	18	7,126	18
90+	79.428	19	1,806	19
<b>Total</b>	<b>74,724,269</b>	<b>-</b>	<b>2,038,555</b>	<b>-</b>

Source: TSI

**Graph 2: Population Pyramid for Turkey and Konya (2011) (thousand people)**



The breakdown of population by residential units reveals that 75.0% of provincial population of Konya lives in cities whereas 25% in rural areas and towns (Table 13).

**Table 13: Breakdown of Provincial Population by Residential Units (2011)**

District	Town		Rural Areas & Towns		Total Population	Share in Provincial Population (%)
	Population	(%)	Population	(%)		
Ahırlı	825	16.4	4,191	83.6	5,016	0.25
Akören	3,296	46.8	3,746	53.2	7,042	0.35
Akşehir	61,557	64.9	33,329	35.1	94,886	4.65
Altınekin	3,640	25.3	10,722	74.7	14,362	0.70
Beyşehir	34,741	49.7	35,225	50.3	69,966	3.43
Bozkır	7,343	24.5	22,571	75.5	29,914	1.47
Cihanbeyli	15,689	26.4	43,653	73.6	59,342	2.91
Çeltik	4,125	38.2	6,666	61.8	10,791	0.53
Çumra	30,011	46.5	34,586	53.5	64,597	3.17
Derbent	2,633	52.5	2,387	47.5	5,020	0.25
Derebucak	2,930	31.3	6,425	68.7	9,355	0.46
Doğanhisar	5,820	27.8	15,120	72.2	20,940	1.03
Emirgazi	5,079	52.9	4,530	47.1	9,609	0.47
Ereğli	97,610	71.6	38,736	28.4	136,346	6.69
Güneysınır	4,656	45.7	5,525	54.3	10,181	0.50
Hadim	3,064	19.9	12,310	80.1	15,374	0.75
Halkapınar	1,589	32.9	3,242	67.1	4,831	0.24
Hüyük	3,637	20.0	14,575	80.0	18,212	0.89
Ilgın	31,464	54.2	26,541	45.8	58,005	2.85
Kadınhanı	13,298	39.5	20,361	60.5	33,659	1.65
Karapınar	32,449	67.5	15,645	32.5	48,094	2.36
Karatay	251,272	92.6	20,163	7.4	271,435	13.31
Kulu	22,844	41.1	32,729	58.9	55,573	2.73
Meram	305,331	95.1	15,727	4.9	321,058	15.75
Sarayönü	8,819	32.1	18,614	67.9	27,433	1.34
Selçuklu	517,188	97.7	12,326	2.3	529,514	25.97
Seydişehir	40,375	63.0	23,713	37.0	64,088	3.14
Taşkent	1,622	20.9	6,131	79.1	7,753	0.38
Tuzlukçu	3,776	50.5	3,701	49.5	7,477	0.37
Yalıhüyük	1,854	91.4	175	8.6	2,029	0.10
Yunak	9,400	35.3	17,253	64.7	26,653	1.31
<b>Total</b>	<b>1,527,937</b>	<b>75.0</b>	<b>510,618</b>	<b>25.0</b>	<b>2,038,555</b>	<b>100.00</b>

Source: TSI

According to the results of 2011 ABPRS, district hosting the hugest population is Selçuklu, accounting for 25.97% of the overall provincial population. The Selçuklu district where 97.7% of the population lives in district centre is situated within the boundaries of the metropolitan municipality. Selçuklu is followed by Meram and Karatay, which are again governed by the metropolitan municipality of the province. While 95.1% of population in Meram lives in city centre, it is 92.6% for Karatay. Yalıhüyük is the biggest district in terms of population size. 91.4% of population lives in city centre in this district. On the other hand, districts with least population size proportionally are Ahırlı (16.4%), Hadim (19.9%), Hüyük (20.0) and Taşkent (20.9%)

The breakdown of population by city and rural area both in overall Turkey and Konya displays a trend gradually shifting in favour of a growing city population. While 31.9% of Turkish population was living in cities and 68.1% in rural areas and towns, it is upside down in 2011 with a city population of 76.8% and rural population of 23.2%. The breakdown of population by city and rural area for Konya displays a similar trend as well. While 28.5% of Konya population was living in city centres and 71.5% in rural areas and towns, it is upside down in 2011 with a city population of 75% and rural population of 25%.

**Table 14:City and Rural Population Rates for Turkey and Konya (%)**

Year	Turkey		Konya	
	City	Rural Areas	City	Rural Areas
1960	31.9	68.1	28.5	71.5
1970	38.5	61.5	35.6	64.4
1980	43.9	56.1	43.1	56.9
1990	59.0	41.0	55.0	45.0
1997	65.0	35.0	59.0	41.0
2007	70.5	29.5	72.1	27.9
2008	75.0	25.0	72.3	27.7
2009	75.5	24.5	72.8	27.2
2010	76.3	23.7	73.8	26.2
2011	76.8	23.2	75.0	25.0

Source: TSI

The trend developing in favour of city population is an indicator of migration from rural areas to cities. Yet, such migration is not merely limited to a switch from rural side to city centres, it led to a growing concentration of population in western provinces where industry

is more flourished. This culminated in a trend that western cities of Turkey gain immigrants whereas provinces of other regions lose immigrants. Such trend had similar implications for Konya, and accompanied with increased mechanization in agriculture and split of land due to succession and inheritance matters, rural segment started to suffer a growing unemployment, triggering a migration to other areas of the country as well as abroad.

Net migration and net migration speed data reveal that Konya stands among provinces suffering a clearly emigrating population. For the 2010-2011 period, the city received an emigrating population of 52,134 people yet lost 54,533 immigrants, creating a negative net migration of 2,399 people and net migration rate of 1.18%.

**Table 15: Net Immigration and Net Immigration Speed**

	Population	Immigrants Received	Immigrants Lost	Net Migration	Net Migration Speed (%)
<b>2007-2008</b>					
Turkey	71,517,100	2,273,492	2,273,492	0	0
TR52	2,200,013	49.646	60.145	-10.499	-4.76
Konya	1,969,868	45.502	56.760	-11.258	-5.70
<b>2008-2009</b>					
Turkey	72,561,312	2,069,262	2,069,262	0	0
TR52	2,224,547	49.397	54.932	-5.535	-2.49
Konya	1,992,675	46.042	51.006	-4.964	-2.49
<b>2009-2010</b>					
Turkey	73,722,988	2,360,079	2,360,079	0	0
TR52	2,246,478	50.725	61.002	-10.277	-4.56
Konya	2,013,845	47.901	56.729	-8.828	-4.37
<b>2010-2011</b>					
Turkey	74,724,269	2,420,181	2,420,181	0	0
TR52	2,272,560	55.041	59.212	-4.171	-1.83
Konya	2,038,555	52.134	54.533	-2.399	-1.18

Source: TSI

### 3.3.2. Employment

Employment data are published by TSI based on non-corporate (15+ age group) population. To this end, non-corporate population is defined as the population other than school, dormitory, hotel, nursery, asylum, hospital, prison, barrack or officer club population. Labour covers the whole population made up of by the employed as well as the unemployed. And the employed covers the whole population of non-corporate working age involved in the on-the-job and off-the-job groups. Accordingly, data relating to the rate of contribution to labour, rate of unemployment and rate of employment for Turkey, the TR52 Level 2 Region and Konya are shown in the table below.

**Table 16: Employment and Unemployment Rates (2010)**

	Population (15+, thousand people)	Labour (thousand people)	Employment (thousand people)	Rate of contribution to labour (%)	Unemployment Rate (%)	Employment Rate (%)
Turkey	52.541	25.641	22.594	48.8	11.9	43.0
TR52	1.592	820	751	51.5	8.4	47.2
Konya	1.474	747	685	50.7	8.2	46.5

Source: TSI

As the table reveals, unemployment and employment rates for overall Turkey calculated based on the 15+ population are 11.9% and 43.0% respectively for 2010. It is observed that unemployment rate for the TR52 Level 2 Region covering Konya and Karaman provinces is behind the Turkish average, yet employment rate for the same region is above the Turkish average. While the unemployment rate for the TR52 Region and Konya is 8.4% and 8.2% respectively, employment rate is 47.2% and 46.5% respectively for the same. For 2010, Konya hosts a 15+ age population of 1,474,000 people, labour population of 747 thousand people and employed population of 685 thousand.

Trend by years of employment rate, unemployment rate and contribution to labour rate for Konya is as follows:

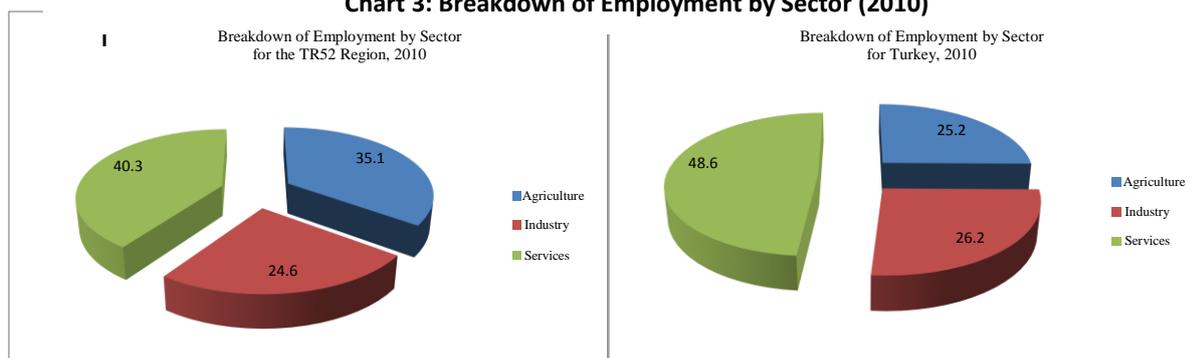
**Table 17: Unemployment and Employment Rates for Konya**

Year	Employment Rate (%)	Unemployment Rate (%)	Contribution to Labour (%)
2008	45.0	10.7	50.3
2009	46.1	10.8	51.6
2010	46.5	8.2	50.7

Source: TSI

As the table reveals, rate of employment being 45.0% for Konya in 2008 grew and reached 46.5% in 2010 whereas unemployment rate declined to 8.2% in 2010 from 10.7% in 2008.

**Chart 3: Breakdown of Employment by Sector (2010)**



The breakdown of employment by sector in Turkey reveals that services sector is ranked first with 48.6% followed by the industrial sector with 26.2% and agricultural sector with 25.2% as of 2010. On the other hand, breakdown of employment by sector for the TR52 Level 2 Region covering Konya and Karaman reveals that, again the services sector is ranked first with 40.3%. Considering, agricultural operations are rather more intense in Konya and Karaman, agriculture is ranked second with 35.1% and industry is ranked third with 24.6%.

Applications filed with the Turkish Employment Agency and actual job placements reveal that 22,857 people applied to the agency in Konya throughout 2010, and of them 2,711 were placed. According to these data, it is observed that job creation capacity is 16.9% for overall Turkey, 12.9% for the TR52 Region and 12.0% for Konya.

**Table 18: Applications with the Turkish Employment Agency & Placements (2010)**

	<b>TURKEY</b>	<b>TR52 REGION</b>	<b>KONYA</b>
<b>APPLICATIONS FILED DURING THE YEAR</b>	<b>1,217,936</b>	<b>27,825</b>	<b>22,587</b>
- Male	759,316	18,416	15,546
- Female	458,620	9,409	7,041
<b>VACANT POSITIONS DURING THE YEAR</b>	<b>368,636</b>	<b>4,348</b>	<b>3,334</b>
- Male	-	-	-
- Female	-	-	-
<b>CANDIDATES OFFERED TO EMPLOYER DURING THE YEAR</b>	<b>1,092,120</b>	<b>17,331</b>	<b>14,385</b>
- Male	866,567	15,036	12,726
- Female	225,553	2,295	1,659
<b>PLACEMENTS DURING THE YEAR</b>	<b>205,231</b>	<b>3,588</b>	<b>2,711</b>
- Male	155,534	2,728	2,098
- Female	49,697	860	613
<b>REGISTERED LABOUR</b>	<b>1,604,355</b>	<b>37,630</b>	<b>31,757</b>
- Male	1,149,625	30,279	26,144
- Female	454,730	7,351	5,613
<b>REGISTERED UNEMPLOYED</b>	<b>1,414,541</b>	<b>33,169</b>	<b>28,042</b>
- Male	999,569	26,265	22,746
- Female	414,972	6,904	5,296

Source: Turkish Employment Agency

### 3.3.3. Social Security

According to the social security criteria, Konya exceeds average national performance in socio-economic terms. As Table 19 reveals, while the rate of total population covered by social security to overall population in Turkey is 83.45%, this is as high as 89.55% in Konya.

This suggests the fact that Konya outdistances the national average in terms of social security. As at 2010, while the number of health card holders in Turkey is 9,395,185, it is 185,595 in Konya, accounting for 1.98% of the total. While the rate of health card holders to total population is 12.74% in Turkey, it is 9.22% for Konya.

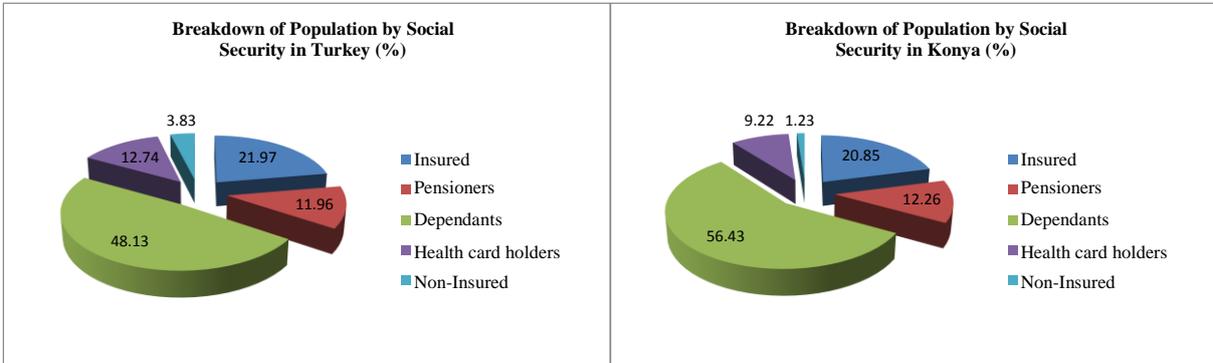
**Table 19: Social Security in Turkey and Konya**

	TURKEY (2010)	KONYA (2010)	KONYA (2011)
Population (persons)	73,722,988	2,013,845	2,038,555
Insured (persons)	16,196,304	419.926	419.617
Pensioners (persons)	8,820,679	246.955	248.546
Dependants (persons)	35,470,436	1,136,486	1,190,043
Total Social Security Coverage*	61,506,194	1,803,367	1,858,206
Total Social Security Coverage/Population (%)	83.43	89.55	91.15
Health card holders (persons)	9,395,185	185.593	181.282
Health card holders / Population %	12.74	9.22	8.89

(\* ) Excluding health card holders  
 Source: SS,I Konya Provincial Directorate of SSI

Number of insured under social security coverage within Konya as at 2011 (Social Insurance Authority, Social Security Organization for Artisans and the Self-employed, Retirement Fund) is 419,617 persons, and number of pensioners registered with the same institutions is 248,546. Total provincial population covered by social security (excluding health card holders) is 1,858,206 persons, accounting for 91.2% of total population. While an increase of 1.6 point has occurred in the rate of total population covered by social security to total population of Konya in 2011 compared to 2010, rate of health card holders to total population has suffered a decline of 0.3 point.

**Chart 4: Breakdown of Population by Social Security (2010)**



In Konya, number of businesses and offices registered with Social Security Institution as at 2011 and scale of such business and offices by their number of employees are shown in the following table:

**Table 20: Breakdown by Size of Businesses Covered by Social Security in Konya (2011)**

Size (persons)	Number of Businesses	Share (%)
1	13,713	39.03
2-3	9,517	27.08
4-6	5,182	14.75
7-9	2,355	6.70
10-19	2,337	6.65
20-29	840	2.39
30-49	664	1.89
50-99	324	0.92
100-249	158	0.45
250-499	30	0.09
500-749	14	0.04
750-999	3	0.01
<b>Total number of businesses</b>	<b>35,137</b>	<b>100.00</b>

Source: Konya Provincial Directorate of SSI

As the table reveals, businesses with 1 employee have the greatest share (39.03%) in total number of businesses followed by businesses with 2-3 employees (27.08%), businesses with 4-6 employees (14.75%) and businesses with 7-9 employees (6.70%). While the number of businesses with 10-99 employees have a share of 11.85% in overall number, it is 0.59% for businesses with 100-999 employees. It is observed that commercial, industrial, agricultural and other businesses of Konya covered by social security are rather represented by small-scale businesses.

### 3.3.4. Education

While literacy rate in Konya was 17.96% in 1935 and 84.15% in 1990, it improved to 94.05% in 2011. According to the ABPRS census in 2011 and based on 6+ age group, literacy rate of women is 91.46% and literacy rate of men is 96.71%. Overall literacy rate of the province outdistances the Turkish average (92.31%).

Educational and literacy status of the provincial population is presented in Table 21 as a comparison of the TR52 Level 2 Region and Turkey.

**Table 21: Breakdown of population by Literacy Rate and Last Educational Institution Completed**

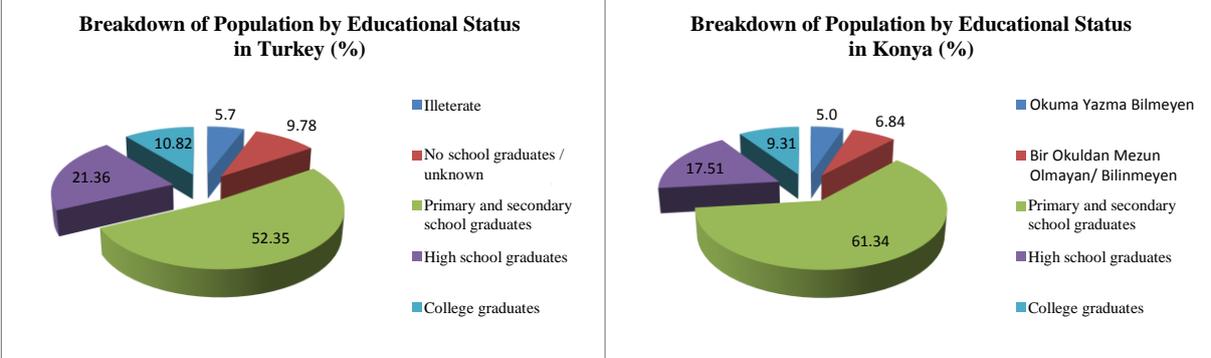
	TURKEY		TR52 REGION		KONYA	
	Population	%	Population	%	Population	%
Illiterate Population	3,171,270	4.73	83,756	4.11	74,820	4.10
Literate Population	61,889,739	92.31	1,915,421	94.07	1,715,916	94.05
Literacy not known	1,984,626	2.96	37,004	1.82	33,708	1.85
<b>POPULATION OF EDUCATIONAL AGE, 6+</b>	<b>67,045,635</b>	<b>100.00</b>	<b>2,036,181</b>	<b>100.00</b>	<b>1,824,444</b>	<b>100.00</b>
No Graduation of an Educational Institution	3,493,589	6.28	76,245	4.57	69,408	4.65
Graduation Status Not Known	1,946,146	3.50	35,892	2.15	32,699	2.19
Illiterate Population	3,163,396	5.69	83,651	5.01	74,722	5.00
<b>Graduation of an Educational Institution</b>	<b>47,015,308</b>	<b>84.53</b>	<b>1,473,605</b>	<b>88.27</b>	<b>1,272,043</b>	<b>88.16</b>
Primary School Graduates	15,333,800	27.57	596,535	35.73	535,245	35.82
Primary Education Graduates	10,922,320	19.64	358,654	21.48	316,250	21.17
Secondary School or Equivalent School Graduates	2,856,407	5.14	71,770	4.30	65,038	4.35
High School or Equivalent School Graduates	11,883,336	21.36	293,011	17.55	261,770	17.51
Academy or Faculty Graduates	5,495,749	9.88	140,985	8.45	127,199	8.52
Post-License Graduates	401,773	0.72	9,157	0.55	8,496	0.57
Doctorate Graduates	121,923	0.22	3,493	0.21	3,328	0.22
<b>BREAKDOWN OF POPULATION BY EDUCATIONAL STATUS, 15+</b>	<b>55,618,439</b>	<b>100.00</b>	<b>1,669,393</b>	<b>100.00</b>	<b>1,494,155</b>	<b>100.00</b>

Source: TSI

Within the 15+ age group in Konya, rate of graduates from an educational institution is 88.16%, above the Turkish average of 84.53%. Breakdown of population by educational status is such that 35.82% of the population is primary school graduates, 21.17% are primary education graduates, 4.35% are secondary school or equivalent school graduates, 8.52% are academy or faculty graduates, 0.57% are post-graduate graduates and 0.22% are doctorate graduates. A comparison by schools of graduation reveals that rate of graduation from primary school and primary education institutions in the province is much above the national average, yet rate of graduation from secondary school, high school, university and post-graduate institutions is below the national average. This reflects the fact that Konya outdistances the national average in primary education, yet falls behind the national average in higher education. While the rate of population that has not graduated from any educational institution to the population of school age is 6.28% for Turkey, it drops down to

4.65% for Konya. Konya and the TR52 Level 2 Region exhibits similar characters in terms of educational status of the population.

**Chart 5: Breakdown of Population by Educational Status (2011)**



In the province, schooling rate of population being at school age is 98.75% in primary education and 64.25% in secondary education for 2011. The assessment of schooling rate by gender reveals that male population scores a better schooling performance than female in all educational segments. While Konya slightly outdistances the national average for its schooling rate in primary education (98.67%), it falls behind the national average for its schooling rate in secondary education (67.37%).

**Table 22: Schooling Rates by School Group and Gender (%) (2011)**

	TURKEY	KONYA
<b>PRIMARY EDUCATION</b>	<b>98.67</b>	<b>98.75</b>
- Male	98.77	98.89
- Female	98.56	98.60
<b>SECONDARY EDUCATION</b>	<b>67.37</b>	<b>64.25</b>
- Male	68.53	64.53
- Female	66.14	63.95

Source: TSI

As at the 2010-2011 school year, Konya hosts 859 pre-school, 930 primary, 119 secondary, and 168 vocational and technical educational institutions. Currently, a total of 462,797 students attend these schools where 22,520 permanent and contracted teachers serve.

Table 23 shows number of schools, students, and students per teacher in educational institutions of the province as presented comparatively with Turkey and the TR52 Region. According to the overall national statistics, number of students per teacher is 22 while it is

20 for the TR52 Level 2 Region and 21 for Konya. Konya does not exhibit any major distinction compared to Turkey in terms of the number of schools, students and teachers by educational segment.

**Table 23: Number of Schools, Students and Teachers by Educational Level**

	TURKEY	TR52	KONYA
<b>PRE-SCHOOL EDUCATION</b>			
- Number of Schools	27,606	1,003	859
- Number of Students	1,115,818	36,807	32,141
- Number of Teachers	48,330	1,341	1,144
- Number of Students per Teacher	23	27	28
<b>PRIMARY EDUCATION</b>			
- Number of Schools	32,797	1,098	930
- Number of Students	10,981,100	340,450	305,955
- Number of Teachers	503,328	17,022	15,149
- Number of Students per Teacher	22	20	20
<b>GENERAL SECONDARY EDUCATION</b>			
- Number of Schools	4,102	143	119
- Number of Students	2,676,123	69,922	60,437
- Number of Teachers	118,378	3,359	2,932
- Number of Students per Teacher	23	21	21
<b>VOCATIONAL AND TECHNICAL EDUCATION</b>			
- Number of Schools	5,179	188	168
- Number of Students	2,072,487	70,197	64,264
- Number of Teachers	104,327	3,625	3,295
- Number of Students per Teacher	20	19	20
<b>TOTAL</b>			
- Number of Schools	69,684	2,432	2,076
- Number of Students	16,845,528	517,376	462,797
- Number of Teachers	774,363	25,347	22,520
- Number of Students per Teacher	22	20	21

Source: TSI

Konya stands as a province growing up qualified members in higher education for Turkey and Konya. The province hosts a total of four universities. Of them, 2 are state universities and 2 are foundation universities.

In Table 24, number of university students and academic instructors in the province for the academic year 2009-2010 are presented comparatively with Turkey and the TR52 Region.

**Table 24: Number of Academic Instructors and Students (2010)**

	TURKEY	TR52 REGION	KONYA
<b>Associate Degree and License Degree</b>			
New Enrolments	764,042	21,434	11,694
Students	3,322,559	75,417	38,505
Graduates (2009-2010)	447,132	17,614	6,019
<b>Academic Instructors*</b>			
Professors	14,571	422	416
Associate Professors	7,827	244	238
Assistant Professors	19,783	662	636
Other	63,246	2,128	1,986

(\*) Employed at their own unit

Source: TSI

Of State Universities, the *Selçuk University*, founded in 1975, is the first university of Konya. However, academic education in the province was started in 1962 with the Selçuk Training Faculty and Islamic Institute inaugurated under the Ministry of Education followed by the Engineering-Architecture College in 1970-1971, leading to the foundation of the Selçuk University in 1975. Scoring a rapid progress in the fields of physics as well as social and cultural sciences and sports until the end of 2000's, the university hosted as much as 24 faculties as at 2011. In late 2011, the Meram Medical School, the Ahmet Keleşoğlu Faculty of Education and the Religious Studies School were linked to the Konya University founded as a second state university. The Selçuk University hosts 21 faculties, 6 institutes, 6 colleges, 23 vocational colleges, 1 state conservatory, and stands as one of the hugest educational institutions of Turkey with an actual capacity of more than 65,000 students.

The *Konya University* was founded as a state university in 2010. The university hosts 9 faculties, 3 institutes and 1 college. A total of 821 academic staff serve in the university.

One of the foundation universities of Konya, the *Mevlana University* was founded in 2009. The university that started its academic life in 2010-2011 period performs its training, educational and research activities along with 6 faculties, 3 colleges, 4 institutes, 5 research centres and a preparatory school.

The *Konya Chamber of Commerce Karatay University*, another foundation university of Konya, was founded in 2009. The academic study offered by the Karatay University is

provided by 3 faculties, 1 college and 1 institute. The university's academic life is flourishing in terms of the number of faculties and other units.

### **3.3.5. Healthcare Services**

According to the data provided by the Provincial Health Directorate of Konya, the province hosts a total of 37 hospitals as at March 2012. Of them, 23 are state hospitals, 10 are private hospitals and 4 are university hospitals. The actual bedding capacity of hospitals is 3,646 beds in state hospitals, 519 in private hospitals and 2,469 in university hospitals, making up a total of 6,634 beds. Number of polyclinics in the province are 26 (5 in public polyclinics and 21 in private hospitals). There are 192 family health services, 251 sanitariums, 5 maternal and infant health centres and 5 tuberculosis dispensaries serving in Konya. There are 3 oral and dental health centres (ODHC) in the province. The Konya ODHC accommodates 54 units, Beyhekim ODHC 62 units and Ereğli ODHC 15 units. Of 718 pharmacies operated in Konya, 416 are located at the provincial centre and 302 in districts.

Konya accounts for 2.6% of overall hospitals and 3.5% of overall beds in Turkey. As the table reveals, number of hospitals per hundred thousand people is 319 in Konya, outdistancing the national average rate of 250. This indicates the fact that Konya exceeds the national average in terms of healthcare services. Konya accounts for 2.6% of total healthcare professionals and 2.5% of total physicians in Turkey.

Comparative healthcare figures for Turkey, the TR52 Region and Konya for the year 2010 are presented in the table below.

**Table 25: Some Healthcare Service Figures for Turkey, TR52 Region and Konya (2010)**

	<b>TURKEY</b>	<b>TR52 REGION</b>	<b>KONYA</b>
<b>Number of Hospitals</b>	<b>1,397</b>	<b>42</b>	<b>37</b>
Ministry of Health	843	25	22
University Hosp.	62	3	3
Private Hosp.	489	14	12
Other Public (*)	3	-	-
<b>Number of Beds</b>	<b>184,050</b>	<b>7,015</b>	<b>6,419</b>
Ministry of Health	119,891	3,954	3,428
University Hosp.	35,001	2,395	2,395
Private Hosp.	28,063	666	596
Other Public	1,095	-	-
<b>Number of Hospital Beds Per 100.000 People</b>	<b>250</b>	<b>312</b>	<b>319</b>
<b>Number of Healthcare Personnel</b>	<b>430,943</b>	<b>12,524</b>	<b>11,188</b>
Specialist Doctors	63,563	1,669	1,515
General Practitioners	38,818	1,211	1,059
Assistant Doctors	21,066	485	485
Doctors Total	123,447	3,365	3,059
Dental Surgeons	21,432	514	466
Pharmacists	26,506	786	689
Health Officers	94,443	3,366	3,030
Nurses	114,772	2,965	2,592
Midwives	50,343	1,528	1,352

(\*) Hospitals controlled by other public agencies and local administrations.

Hospitals and healthcare professionals governed by the Ministry of National Defence are excluded.

Source: TSI

In Konya that is standing at a relatively better rank compared to national averages in healthcare sector; healthcare investments, both in progress and proposed, are as follows according to the information provided by the Provincial Health Directorate of Konya:

- The Mental Health Hospital (with 200 bed capacity) at the Selçuklu Beyhekim Health Campus has been completed and put into service for admission of patients. Furthermore, the construction of High-Security Forensic Psychiatry Hospital with 100 bed capacity is proposed. The physical construction of Oncology Hospital with 200-bed capacity has been completed. Construction and furnishing of the Physical Treatment and Rehabilitation Centre (100-bed capacity) has been completed. A new hospital with 500-bed capacity will be constructed adjacent to the Numune Hospital.

- A 60-unit Oral and Dental Health Hospital will be built in Selçuklu district of the province. Furthermore, the 112 Emergency Call Centre is being built.
- The construction of the hospital with 200-bed capacity in the Akşehir District is in progress.
- The construction of a hospital with 75-bed capacity will be started in the Ilgın District.
- The construction of a hospital with 50-bed capacity will be started in the Seydişehir District.
- The construction of a hospital with 200-bed capacity will be started in the Ereğli District.
- The construction of a hospital with 50-bed capacity will be started in the Karapınar District.
- The construction of a hospital with 75-bed capacity is proposed in the Çumra district.
- An integrated health facility with total 800-bed capacity (a regional hospital with 400 bed capacity and an obstetrics & gynaecology hospital with 400 bed capacity) will be built in Karatay District.
- Construction of hospitals in Emirgazi and Çeltik districts has been involved in the investment scheme of the Ministry of Health.
- Land and project development for the hospital to be built in Beyşehir District is in progress.
- Furthermore, the Yunak Ortakışla Sanitarium and the Karatay Yağlıbayat Sanitarium are being built by the Special Provincial Administration of Konya. Also the construction of a sanitarium in Beyşehir and Emirgazi is proposed.

### **3.3.6. Tourism**

Throughout the history, Konya was under the influence of distinct cultures and civilizations, and has accommodated myriad of civilizations. Permanent settlements in and around Konya date back to the prehistoric period. Mounds serving as residential area for civilizations of that period are located within the provincial boundaries of Konya. Artefacts dating back to the B.C 7000-5500 Neolithic Period were extracted during archaeological excavations in

Çatalhöyük. A Hittite settlement appears in Karacahöyük at the provincial centre of Konya. After the Hittites, the traces of Phrygians were found in Konya, and artefacts dating back to B.C. 7th century were extracted on the Alaaddin Hill together with various locations such as Karapınar, Gıcıkışla and Sızma. After the Phrygians period, Konya was invaded by Lydians and Alexander the Great, and then continued its existence under the name of Iconium once Rome sovereignty was established in Anatolia. Driven by the spread of Islam, Umayyads and Abbasids started to inrush to Byzantine through Konya. After the Malazgirt War (1071), the Seljuks conquered Konya back from the Byzantine whereby the city was proclaimed as the capital city of the Anatolian Seljuk State in 1076. The periods during which Konya stood as the capital city of the Anatolian Seljuk State are 1076-1080 and 1097-1277. Involved under the sovereignty of the Karaman State in 1277, Konya remained to be one of the prominent and reputable provinces during the Ottoman Period as well after Murat II ceased the existence of Karamans in 1442. Scoring a rapid growth and rise during the Republican period as well, Konya, serving as a settlement that hosted historical civilizations, is kind of an outdoor museum today with its wealth of historical artefacts and findings.

Besides its historical and cultural artefacts inherited from its rich history, Konya is also one of the prominent centres of Turkey for its lake, thermal and nature tourism potential. However, we observe that unfortunately such potential is not satisfactorily utilised, potentially underpinned at designing and supporting tourism sector rather in favour of coastal tourism.

The tourism wealth that Konya boasts will be studied in two headings, namely historical & cultural assets and nature potential.

### **3.3.6.1. Historical and Cultural Assets**

Most significant artefacts dating back to the period prior to Turkish sovereignty are Çatalhöyük, the Ivriz Rock Monument, Siyata, the Ak Monastery, the Sille Aya-Elena Church, the Eflatunpınar Hittite Monument, the Ancient City of Clistra, Karahöyük, Bolat Ören Ground and the Necropolis Square.

**Çatalhöyük**; The mound located 10 km east to the Çumra district is in the form of a plain overlaying two hills of different height. Discovered in 1958, Çatalhöyük is a neolithic town accommodating around 8,000 people with an in-depth history of 9000 years. One of the most significant centres of earth in terms of the history of humanity, Çatalhöyük sheds light

on the history of civilization with its authentic artefacts of initial settlements, initial house architecture and initial sacred structures. Artefacts extracted from the mound where extractions are carried out at particular intervals since 1961 are exhibited at the Archaeology Museum of Konya.

The **Ivriz Rock Monument**; the Ivriz Rock Relief located in Aydıncık village of Halkapınar 17 km to the south of the Ereğli district is one of the most significant surviving cultural assets dating back to the Tyana Kingdom. The Ivriz Rock Relief dating back to B.C. 800 is 4.20x2.40 m in size. The relief could reach the present time in a well protected composition.

The **Siyata Ören Ground** located 8 km north west to the provincial centre is one of the significant settlements of the early Byzantine period. Myriad of monasteries in the region, primarily including the Ak Monastery, are caved in rocks.

**The Aya-Elena Church and Sille**; the church located in Sille, 7 km far to the provincial centre, was constructed in A.C 327, and hosts chambers in the yard caved in rocks. The church accommodates a wooden plaster-decorated pulpit, with illustrations of the Virgin, Jesus and Apostles on vault passageways and pedestals. Sille is a town with a distinctive lifestyle driven by its natural silhouette together with historical traces, civil architecture, residential texture, common laws and customs, gardens and vineyards associated with such silhouette.

**The Eflatunpınar Hittite Monument**: The monument in Beyşehir district consists of reliefs on rectangular stones. Dating back to the Hittite period, the monument is decorated with figures on block stones that are represented by sun course figure on the top, goddess and god figures in the middle and other various figures on the bottom.

**The Ancient City of Clistra**: The ancient settlement located in Gökyurt village that is 55 km far to Konya dates back to B.C third century. Rock settlements revealed by excavations and composed of soft rocks caved are estimated to be dating back to the A.C. 7th century. The chapel in cross layout, the Sümbül Church, the Big Basilica and Stum Houses located in the Clistra village 15 km far to LYSTRA, the haunt of St. Paul, referred to in the Bible, have received structural restorations and landscaping arrangements. Excavations and cleaning works in caved rock settlements of the ancient city of Clistra overlaying a vast area are still in progress.

**Karahöyük** is located 15 km south east to the provincial centre, and is estimated to be built between B.C. 3000 Old Bronze Age and B.C. 2000 period of Assyrian merchant colonies. Artefacts discovered during the excavations in Karacahöyük constitute crucial documents describing the cultural and commercial relationships of the period. These artefacts are exhibited at the Archaeology Museum of Konya.

Holding a very substantial importance for the Turkish history, Konya hosts myriad of mosques, madrasahs, caravanserais and mausoleums built during the period of Seljuks, Karamans and the Ottoman State. Konya served as the capital city of Seljuks for more than two centuries and saw the production of popular masterpieces of Turkish architecture during that period.

**The Mevlana Museum**; a mausoleum and a china-coated conical dome was built on on the rosary gifted to Bahaeddin Veled, the father of Jalāl ad-Dīn Muḥammad Balkhī, by the Seljuk Sultan, in 1274 and then in 1396 respectively. Constructed by the Architect Bedreddin Tebrizi, and acting as a provincial landmark of Konya, the Mevlana Museum was opened to visit in 1927. Exhibited in the building are masterpieces belonging to Rumi and Mevleviyeh preserved since the time the building was being employed as a dervish lodge, as well as Mevlevi musical instruments, works of calligraphy, fabric samples and carpets.

Jalāl ad-Dīn Muḥammad Balkhī is one of the prominent personages of the Turkish-Islamic Literature. Rumi spearheaded the spread of sufi movement, originating from New Platonism thoughts, to Anatolia, and is the pioneer of the Mevlevi movement of thought. The significance of Rumi in the history of thoughts is underpinned by the sufistic love he developed and spread. According to Rumi, love is the primary element acting as as bridge between human and God, and immortalizing human spirit within divine existence. God is the essence of all creatures, the source of existence, and all creatures on earth are embodied by God and the God is embodied by all creatures. All creature types and God are identical indeed, form a unity, and only differ by physical appearance. All humans are identical, and they are divine for the spirit they hold. Therefore, religion distinctions, belief variations are void. What is of essence is to love the God, and to live with people dressed with divine essences within harmony, peace and brotherhood. Such Mevlana approach essentially based

on love GVAe him a pandemic historical personage, and extended his opinions and thoughts beyond Turkish-Islamic frontiers into a global reputation.

Another personage who lived in Konya and holding a worldwide reputation as well is Nasreddin Hodja. Estimated to live in Akşehir during the 13<sup>rd</sup> century, Nasreddin Hodja is a folk wise man with a legendary life and personality primarily characterized with his popular jokes. In thirteenth century, art is fed by two major sources. One is the introvert, religion-based sufistic thought, and the other is folk humour based on hope and optimism. Nasreddin Hodja is one of the most prominent personages of folk humour around the globe. In his jokes, contradictions of his period and difficulties experienced by people are depicted through irony and a global hope.

The Nasreddin Hodja Mausoleum is located in Akşehir. The building gained its current form after a restoration in 1905. The building is survived by only the central main mausoleum section.

Hosting a historical and cultural wealth through myriad of civilizations accommodated, Konya houses plenty of artworks belonging to the period dominated by Turkish sovereignty. Major historical artworks belonging to that period are shown in Table 26:

**Table 26: Artworks in Konya by period**

<b>Historical Artworks</b>	<b>Period</b>	<b>Location</b>
The Sahip Ata Social Complex	13 <sup>th</sup> century	provincial centre
The Alaeddin Mosque	12 <sup>th</sup> century	provincial centre
The Sadrettin Konevi Mosque and Mausoleum	13 <sup>th</sup> century	provincial centre
The İplikçi Mosque and Madrasah	12 <sup>th</sup> -13 <sup>th</sup> century	provincial centre
The Dursunoğlu Mosque	15 <sup>th</sup> century	provincial centre
The Selimiye Mosque	16 <sup>th</sup> century	provincial centre
The Kapı (İhyaiyye) Mosque	17 <sup>th</sup> century	provincial centre
The Aziziye Mosque	17 <sup>th</sup> century	provincial centre
Taş Mescit (Stone Mosque)	13 <sup>th</sup> century	provincial centre
Beşarebey (Ferhuniye) Mosque	13 <sup>th</sup> century	provincial centre
The Erdemşah Mosque	13 <sup>th</sup> century	provincial centre
The Hoca Hasan Mosque	13 <sup>th</sup> century	provincial centre
The Sırçalı Mosque	13 <sup>th</sup> century	provincial centre
The Karatay Mosque	13 <sup>th</sup> century	provincial centre
The Tahir ile Zühre Mosque	13 <sup>th</sup> century	provincial centre
The Beyhekim Mosque	13 <sup>th</sup> century	provincial centre
The Has Bey Quran School	15 <sup>th</sup> century	provincial centre
The Nasuh Bey Quran School	15 <sup>th</sup> century	provincial centre
The Gömeç Hatun (Maiden's Tower) Mausoleum	13 <sup>th</sup> century	provincial centre
The Sheikh Aliman (Alaman) Mausoleum	13 <sup>th</sup> century	provincial centre
The Kalender Baba (Sheikh Ebubekir) Mausoleum	15 <sup>th</sup> century	provincial centre
The Fakih Dede Mausoleum	15 <sup>th</sup> century	provincial centre
The Sheikh Şücaeddin Mausoleum		
The Şeyh Halili Mausoleum	16 <sup>th</sup> century	provincial centre
The Ali GVA Madrasah	12 <sup>th</sup> -13 <sup>th</sup> century	provincial centre
The Tacül Vezir Madrasah and Mausoleum	13 <sup>th</sup> century	provincial centre
The Glass Madrasah	13 <sup>th</sup> century	provincial centre
The Küçük Karatay Madrasah	13 <sup>th</sup> century	provincial centre
The İnce Minareli Madrasah	13 <sup>th</sup> century	provincial centre
The Argıt Caravanserai (The Altınapa Caravanserai)	13 <sup>th</sup> century	Akşehir Motorway
The Kızılviran (Kızılören) Caravanseria	13 <sup>th</sup> century	Beyşehir Motorway
The Sultan Caravanseria	13 <sup>th</sup> century	Aksaray Motorway
The Zazadin Caravanseria	13 <sup>th</sup> century	Aksaray Motorway
The Horozlu Caravanseria	13 <sup>th</sup> century	provincial centre

**Table 26 (Cont'd)**

<b>Historical Artworks</b>	<b>Period</b>	<b>Location</b>
The Ulu Mosque	13 <sup>th</sup> century	Akşehir
The Altunkalem Mosque	13 <sup>th</sup> century	Akşehir
The Güdük Minare Mosque	13 <sup>th</sup> century	Akşehir
The Small Hagia Sophia Mosque	13 <sup>th</sup> century	Akşehir
The Stone Madrasah and Mosque	13 <sup>th</sup> century	Akşehir
The Kileci Mosque	13 <sup>th</sup> century	Akşehir
The Kızılca Mosque	13 <sup>th</sup> century	Akşehir
The Seyyid Mahmud Hayran Monastery	13 <sup>th</sup> century	Akşehir
The Emir Yavtaş Mausoleum	13 <sup>th</sup> century	Akşehir
The Sheikh Hasan Mausoleum	14 <sup>th</sup> century	Akşehir
The İshaklı Caravanseria	13 <sup>th</sup> century	Akşehir
The Eşrefoğlu Mosque	12 <sup>th</sup> century	Beyşehir
The Demirli Mosque	13 <sup>th</sup> -14 <sup>th</sup> century	Beyşehir
The İsmail Aka Madrasah (The Stone Madrasah)	14 <sup>th</sup> century	Beyşehir
The Big Bath	13 <sup>th</sup> century	Beyşehir
The Kubadabad Palace	13 <sup>th</sup> century	Beyşehir
The Kuruçeşme Caravanseria	13 <sup>th</sup> century	Beyşehir
Bedestan	15 <sup>th</sup> century	Beyşehir
The Karabaş Veli Complex	15 <sup>th</sup> century	Ereğli
The Ulu Mosque and Minaret	12 <sup>th</sup> -15 <sup>th</sup> century	Ereğli
The Ağalar Mosque	16 <sup>th</sup> century	Ereğli
Sheikh Şahabeddin Monastery	14 <sup>th</sup> century	Ereğli
The Rüstem Paşa Caravanseria	16 <sup>th</sup> century	Ereğli
The Lala Mustafa Paşa Complex	16 <sup>th</sup> century	İlgın
The Pir Hüseyin Mosque	15 <sup>th</sup> century	İlgın
The İlgın hot spring	13 <sup>th</sup> century	İlgın
The Selim II Complex	16 <sup>th</sup> century	Karapınar
The Seyyid Harun Mosque and Mausoleum	14 <sup>th</sup> century	Seydişehir
Muallimhane	16 <sup>th</sup> century	Seydişehir

In addition to the abovementioned artworks, the province, primarily the provincial centre, hosts miscellaneous bridges, fountains and other similar historical artworks. Furthermore, myriad of historical artworks extracted from mounds and antique cities within the province are exhibited in museums in the province. Archaeology museum of Konya is the most

significant museum of the province followed by other museums briefly listed as follows: The Atatürk Museum, the Mevlana Museum, the Karatay China Artworks Museum, the Ethnography Museum, the Koyunoğlu Museum, the Thin Minaret Stone and Wooden Artworks Museum, the Glass Grave Monuments Museum, the Akşehir Museum and the Ereğli Museum.

### **3.3.6.2. Natural Potential**

Konya hosts a great potential for its wealth of natural resources with tourism value. Primarily national parks, natural lakes and geothermal resources represent this wealth. The Beyşehir Lake, one of the biggest freshwater lakes of Turkey is located within the provincial boundaries of Konya. The Meke Lake standing as one of the biggest natural monuments of Turkey, the Ereğli Reed Bed having crucial significance for game wildlife, the Akşehir Lake, the Çavuşçu Lake, the Maden Lake, the Düden Lake, and the Samsam Lake are located within the boundaries of the province. Of 500 bird species living in the European continent, 450 species live in Turkey, and among them, 240 species live in water lands within the province. Preserving the nature, avoiding unconscious hunting, preserving and rehabilitating game wildlife are indispensable conditions for conveying these assets to future generations. With a view to preserving wet lands in the province, four National Parks, namely the Beyşehir Lake National Park, the Akgöl Nature Preservation Zone, the Fosil Ardiç National Park and the Titrek Kavak National Park, have been created in the province. In addition to these national parks, there are plenty of in-forest recreational and picnic areas serving to primarily the locals of the province. Furthermore, caves hosting dolines and waterfalls are spectacular landmarks of the province. Of them, the Balatini Cave (Beyşehir), the Körükini Cave (Beyşehir), the Suluin Cave (Beyşehir), the Sakaltutan Cave (Seydişehir), the Susuz Cave (Seydişehir), the Tınaztepe Cave (Seydişehir), the Pınarbaşı Cave (Beyşehir), the Büyükdüden Cave (Derebucak) and the Yerköprü (Hadim) Cave represent prominent examples.

Besides cold water resources and lakes thanks to the closed basin and concentrated karstic formations within the provincial territories of Konya, the province hosts myriad of hot water resources. The geothermal resource housing the **Ilgın** hot springs is known since ancient times and employed by locals. In the Ilgın hot springs offering a temperature of 42<sup>o</sup>, current facilities will soon turn to major thermal complexes. The **Ismil** geothermal resource on which

a thermal facility and holiday village was established is located on the Konya-Karapınar highway. The hot spring serving to domestic and foreign visitors has the potential of turning out to be a major thermal complex offering curing, rehabilitation and recreational services. The Çavuşçuköyü Open Hot Spring, the Seydişehir Hot Spring, the Hadim Yerköprü Hot Spring and Aşağı Çiğil Spring Water are other major geothermal resources in the province.

### 3.3.6.3. Tourism Supply and Demand

According to the information provided by the Provincial Culture and Tourism Directorate of Konya, the province hosts a total of 24 hotels equipped with tourism operation certificate. Of them, 17 are located at the provincial centre, and 7 are in Akşehir, Seydişehir, Beyşehir, Ilgın and Ereğli districts. The entirety of five-star and four-star hotels is accommodated by Selçuklu and Karatay districts at the provincial centre. Total number of rooms in Konya hotels with tourist operation certificate is 1,977 offering a bedding capacity of 4,032 beds along with an occupancy rate of 33.9%. Total bedding capacity of three five-star hotels is 1,368 beds along with an occupancy rate of 46.7% whereas total bedding capacity of six four-star hotels is 1,464 beds with an occupancy rate of 41.6%.

**Table 27: Hotels with Tourism Operation License in Konya (2011)**

Type	Number of Hotels	Number of Rooms	Number of Beds	Average Occupancy Rate (%)
5-Star	3	672	1,368	46.7
4-Star	6	709	1,464	41.6
3-Star	9	384	770	22.9
2-Star	4	135	268	22.6
Private License	2	77	162	69.1
<b>TOTAL</b>	<b>24</b>	<b>1,977</b>	<b>4,032</b>	<b>33.9</b>

Source: Konya Provincial Directorate of Culture and Tourism

In Konya, there are 78 travelling agencies equipped with tourist operation certificate. Of them, 61 are involved in class A, and 4 in Class B. There are 15 restaurants equipped with tourist certificate in the province. Of them, 6 are private restaurants, 6 are first-class facilities, 2 are second-class facilities and 1 is a stopover.

In five and four-star hotels of Konya, high-quality tourism supply in the form of restaurant and travelling agency service is concentrated in the city centre. Since tourist operations in

Konya are mainly driven by the Mevlana Museum and Rumi events, tourist operations are mainly concentrated in the city centre, as a result of which both the accommodation facilities and other non-accommodation facilities offering catering, entertainment and similar services are primarily located in district centres. The fact that Rumi stands at the core of tourism demand to Konya adds to the weight of transit passes and daily accommodations in the overall tourism profile of Konya. However, added value brought in by such a tourism approach is limited. In case the high-speed train line with Konya-Ankara link is expanded along the Istanbul-Konya-Antalya route, the congress tourism, culture tourism, health tourism and district-based thermal tourism events will be enlivened. With a view to flourishing provincial tourism throughout the whole province, also the tourism potential in districts other than central districts should be put into good use for the sake of high-quality facility supply, a major component of tourism infrastructure. There is need to tourism investments allowing to put into good use the potential in terms of natural resources such as mountains, natural lakes, forests, wildlife and their combinations besides cultural and historical assets of the province.

Data for the year 2010 relating to the number of arrivals to, accommodations in, average period of stay in and occupancy rate of tourist facilities for Turkey, the TR52 Level 2 Region and Konya are comparatively provided in Table 28.

**Table 28: Number of Arrivals to Facilities and Night Accommodations (2010)**

	Number of Arrivals to Facilities			Number of Accommodations		
	Foreign tourists	Domestic tourists	Total	Foreign tourists	Domestic tourists	Total
<b>TURKEY</b>	<b>17,415,364</b>	<b>12,338,602</b>	<b>29,753,966</b>	<b>74,325,670</b>	<b>23,832,337</b>	<b>98,158,007</b>
<b>TR52</b>	<b>164,610</b>	<b>257,109</b>	<b>421,719</b>	<b>203,195</b>	<b>375,021</b>	<b>578,216</b>
<b>KONYA</b>	<b>164,335</b>	<b>244,361</b>	<b>408,696</b>	<b>202,830</b>	<b>358,265</b>	<b>561,095</b>
Karatay	14,913	83,759	98,672	22,814	119,811	142,625
Meram	569	8,249	8,818	748	11,180	11,928
Selçuklu	148,472	133,116	28,588	177,894	199,966	377,860
Akşehir	123	14,512	14,635	237	16,492	16,729
Beyşehir	94	1,127	1,221	146	1,272	1,418
İlgin	164	3,598	3,762	991	9,544	10,535

Source: Ministry of Culture and Tourism

As the table reveals, total number of arrivals to tourist facilities in overall Turkey is 29,753,966. Of it, 1.4% (408,696) is accounted for by Konya. The breakdown of arrivals by domestic and foreign tourist reveals that Konya accounts for 1.0% and 2.0% of total foreign and domestic tourist arrivals to tourist facilities in overall country respectively.

In the overall country, number of accommodations for 2010 is 98,158,007. Of that, 0.6% (561,095) is accounted for by Konya. While Konya represents a share of 1.5% in overall national figures for domestic tourists, it drops to 0.3% for foreign tourists. Comparison by average period of stay in facilities reveals that while average period of stay of foreign tourists in Turkey is 4.3 days, that is 1.2 days for Konya, whereas average of period of stay of domestic tourists in Turkey is 1.9 days, and that is 1.5 days for Konya. It is observed that while tourist facilities in Turkey have an occupancy rate of 49.2%, that is 45% for Konya. Comparison between tourism figures of the whole country to Konya reveals that the deepest distinction occurs in the number of arrivals, accommodations and average periods of stay by domestic and foreign tourists, and that provincial tourism of Konya is rather based on domestic tourism. Considering the TR52 Region, it is observed that almost 100% of the tourism capacity of the region is accounted for by Konya.

**Table 29: Average Period of Stay in Tourist Facilities and Occupancy Rates (2010)**

	Average Period of Stay			Occupancy Rate (%)		
	Foreign tourists	Domestic tourists	Total	Foreign tourists	Domestic tourists	Total
<b>TURKEY</b>	<b>4.3</b>	<b>1.9</b>	<b>3.3</b>	<b>37.2</b>	<b>11.9</b>	<b>49.2</b>
<b>TR52</b>	<b>1.3</b>	<b>1.4</b>	<b>1.4</b>	<b>8.4</b>	<b>26.9</b>	<b>35.3</b>
<b>KONYA</b>	<b>1.2</b>	<b>1.5</b>	<b>1.4</b>	<b>16.3</b>	<b>28.8</b>	<b>45.1</b>
Karatay	1.5	1.4	1.4	7.4	38.9	46.4
Meram	1.3	1.4	1.4	1.6	23.9	25.5
Selçuklu	1.2	1.5	1.3	25.6	28.4	53.6
Akşehir	1.9	1.1	1.1	0.5	32.5	33.0
Beyşehir	1.6	1.1	1.2	2.0	17.3	19.3
Ilgın	6.0	2.7	2.8	1.1	10.2	11.2

Source: Ministry of Culture and Tourism

For its wealth of cultural and natural resources, Konya has a potential capable of attracting domestic and foreign demand. However, the level of demand resulting in actual accommodation is not sufficient to raise the contribution of the tourism sector to the

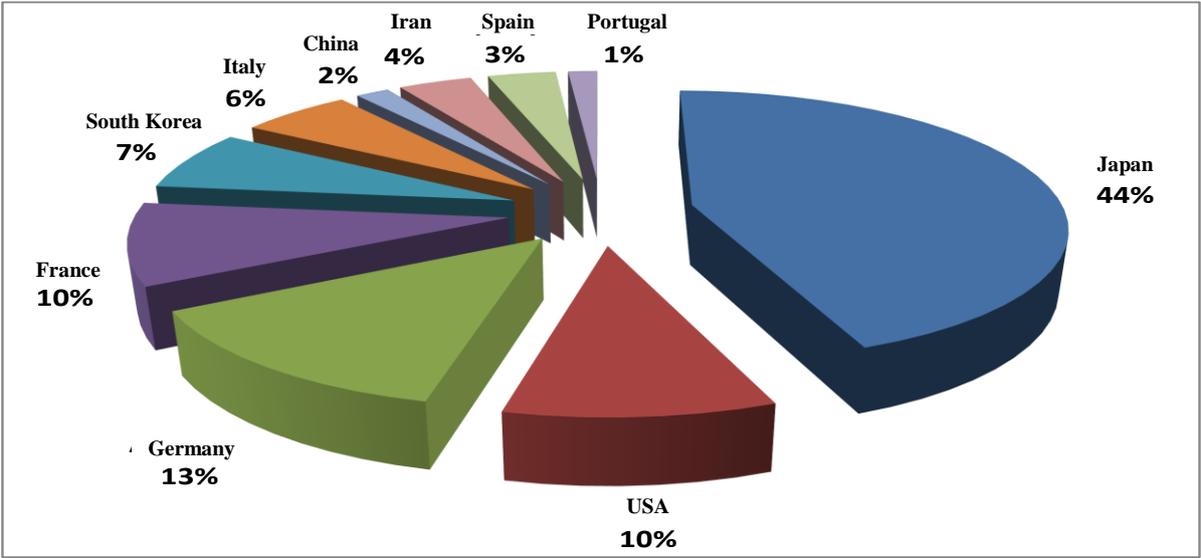
provincial economy. Majority of the demand in the province originates from domestic visitors, primarily represented by business travels and transit passes. Both domestic and foreign visitors travelling to Konya for visiting purposes prefer central districts (Selçuklu, Karatay, Meram). On the other hand, domestic tourists to surrounding districts (Akşehir, Beyşehir, Ilgın) primarily focus on thermal facilities, and are the main actors of the health tourism. Tourism demand of foreign and domestic tourists, that is concentrated in the city centre and mainly represented by daily accommodation-free events is primarily oriented in the Mevlana Museum. Breakdown by country of foreign tourist demand towards Konya is shown in Table 30.

**Table 30: Breakdown by Country of Foreign Tourists Visiting Konya**

Country	2010	2011
Japan	51,637	54,536
Germany	19,874	12,387
France	12,687	10,527
USA	10,592	12,922
South Korea	8,399	8,576
Italy	6,122	7,643
Iran	5,025	4,094
Spain	5,013	3,403
Portugal	3,615	-
China	-	4.143
<b>TOTAL</b>	<b>122.964</b>	<b>118.231</b>

Source: Konya Provincial Directorate of Culture and Tourism

**Chart 6: Breakdown by Country of Foreign Tourists Visiting Konya (2010-2011 Total)**



The breakdown by country of total foreign tourists visiting Konya for the 2010-2011 period reveals the fact that 44% of total foreign tourists is Japan. This is followed by German

tourists (13%), US tourists (10%) and French tourists (10%). Number of tourists from top five countries constitutes 77% of total foreign tourists destined to the province. Other countries involved within the profile of foreign tourists destined to Konya are South Korea, Italy, Iran, Spain, China and Portugal. Average period of stay of foreign tourists coming to Konya is 1.2 nights in 2010, and 16.3% of occupancy rate of tourist facilities in Konya is accounted for by foreign tourists.

Table 31 shows the visitor toll destined to museums in Konya for 2010 and 2011:

**Table 31: Visitors of Museums in Konya**

Museum	2010	Share (%)	2011	Share (%)
<b>MUSEUMS IN THE PROVINCIAL CENTRE OF KONYA</b>				
Mevlana	1,644,426	91.2	1,733,315	92.8
Karatay	71,558	3.9	62,934	3.3
The Thin Minaret	56,690	3.1	42,523	2.3
Atatürk	5,740	0.3	2,211	0.1
Archaeology	6,758	0.4	14,375	0.8
Ethnography	8,298	0.5	5,673	0.3
Çatalhöyük	9,905	0.6	7,060	0.4
<b>Total Visitors</b>	<b>1,803,375</b>	<b>100.0</b>	<b>1,868,091</b>	<b>100.0</b>
Domestic tourists	1,311,815	73.0	1,469,141	79.0
Foreign tourists	491,560	27.0	398,947	21.0
<b>MUSEUMS IN AKŞEHİR AND EREĞLİ</b>				
Akşehir B. Cephesi	17,293	48.0	16,401	51.0
Akşehir Nasreddin Hodja	13,910	39.0	12,389	38.0
Ereğli	4,650	13.0	3,525	11.0
<b>Total Visitors</b>	<b>35,853</b>	<b>100.0</b>	<b>32,315</b>	<b>100.0</b>

Source: Konya Provincial Directorate of Culture and Tourism

Number of visitors to Konya museums obviously demonstrates the fact that Konya tourism is mainly driven by Rumi. Total number of visitors to museums located at the centre of Konya as at 2011 is 1,868,091. Of that, 92.8% is accounted for by tourists destined to the Mevlana Museum. 79% of museum visitors is represented by domestic visitors, and 21% by foreign visitors.

The strengths of Konya for tourism are its location along the route to developed regions, its being the pivotal centre of Mevlana-oriented faith tourism, and its wealth of an enriched history and cultural assets in favour of a great natural resource potential. More efficient utilization of the tourism potential of the province for the sake of boosted tourism income requires a well-designed collaboration in urban planning together with improving the

tourism infrastructure, and elaborating and implementing plans for enhancing the quality and scale of tourism supply and demand.

Key factors in flourishing the tourism infrastructure are improving and employing in recreational tourism the natural environment, preserving historical and cultural assets and utilizing them more effectively in culture tourism, upgrading the training and cultural level of human resources, and addressing the requirements, quality and priorities of infrastructure plans and projects for tourism development.

#### **3.3.6.4. Incentives and Subsidies towards the Tourism Sector**

The Tourism Incentive Law no 2634 that was put into force in 1982 has triggered a substantial trend in the tourism sector. Since the date the law was put into effect, number of tourists coming to Turkey has increased by 22 folds accompanied with a 62-fold increase in tourism productions. In such remarkable growth of the tourism sector, incentives and subsidies provided to tourism establishments have a crucial contribution.

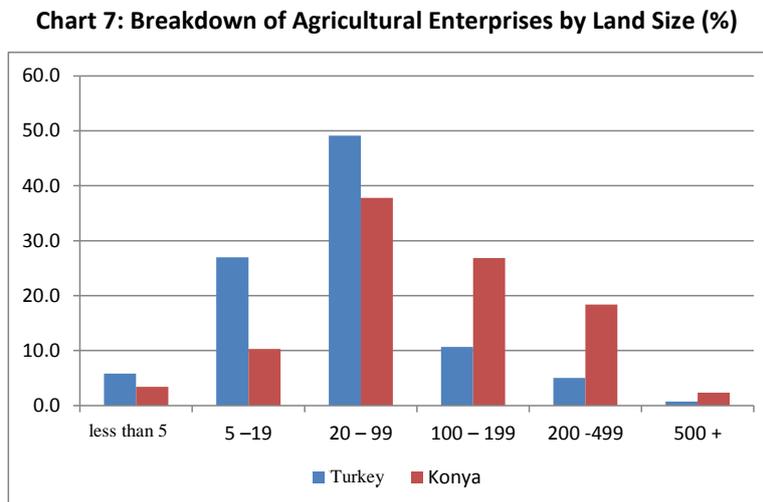
Incentives and subsidies for the tourism sector are classified as follows:

- As to subsidies and services within the framework of the Small and Medium Enterprises Development Organization (SMEPO), the word "industry" has been replaced by the word "enterprise" in 2009 from the definition of SME provided in Law no 3624, involving the service sector. On account of this amendment, tourism enterprises have been involved within the scope of SMEPO subsidies and services.
- Subsidies granted under the Cabinet Decision on State Subsidies for Investments,
- Subsidies granted by virtue of the Tourism Incentive Law no 2634,
- Exemptions provided for in the Real Estate Tax Law no 1319,
- Credit facilities extended by the Turkish Exporters Credit Bank (EXIMBANK),
- Incentives and subsidies within the scope of incentives for investment capital investments,
- Subsidies for exhibition in foreign tourism expos.

#### 4. AGRICULTURE AND STOCK FARMING<sup>1</sup>

With its surface area of 40,814 km<sup>2</sup> (38,873 km<sup>2</sup> excluding the lakes) Konya constitutes 5.2% of the overall country area and is ranked the first in the classification of provinces according to the size of surface area. 55.1% of the provincial territory of Konya is constituted by agricultural fields followed by 18.7% of pasture and grassland, 13.2% of forests and heaths, and 13% of non-farm lands. Majority of provincial territories located at an altitude range of 570-1,700 meters is partly composed of vast plains crossed by rough areas. North-eastern and western regions of the province are primarily occupied by big plains whereas the southern area is composed of a rough land. Surrounded by the Ereğli and Karapınar Plains in the east, the Cihanbeyli plain extending to the west of the Salt Lake in the north, Beyşehir to the east of the Beyşehir Lake in the west, and Çumra plains in the south, the province has the Konya Plain at its centre as its most crucial plain.

While agriculture is carried out on majority of the arable part of the provincial territory, the province hosts a string of medium and big-scale agricultural enterprises. Average land size per enterprise outdistances the country average. According to the 2001 general agricultural census, average enterprise size in the province is 131 decares while average provincial land size throughout Turkey is 60 decares.



As the chart reveals, rate of small and medium-scale enterprises engaged in agricultural production in Konya is inferior compared to the country average: While share of enterprises

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<sup>1</sup> General design and elaboration of this part of the report has been undertaken by Ömür Genç, Deputy Manager for Economical and Social Researches.

with operational land less than 5 decares in total number of enterprises in Turkey is 5.8% and enterprises with land size of 5-19 decares represent 27%, small-scale enterprises in the province with land less than 5 decares account for 3.4% of total enterprises, and enterprises with land size of 5-19 decares in the province account for 10.3% of the total. Furthermore, enterprises holding an asset of lands greater than 100 decares is above the Turkish average. While enterprises holding a land size of 100-199 decares represent 26.8%, enterprises holding a land size of 200-499 decares and above 500 decares account for 18.4% and 2.3% respectively. On the other hand, country-wide statistics are 10.6%, 5% and 0.7% respectively.

Table 32 shows the breakdown - by land size - of the number of agricultural enterprises in Konya and the volume of land cultivated

**Table 32: Total Agricultural Enterprises within Konya & Size of Land Cultivated**

Land Size (da)	Enterprises		Land Managed by the Enterprise	
	Units	%	Decares	%
Enterprises With No Land Owned	969	1.0	0	0.0
less than 5	3,367	3.4	7,917	0.1
5 – 9	3,448	3.5	21,816	0.2
10 – 19	6,802	6.8	94,165	0.7
20 – 49	19,102	19.2	645,691	5.0
50 – 99	18,524	18.6	1,306,012	10.0
100 – 199	26,722	26.8	3,682,115	28.2
200-499	18,271	18.4	4,880,462	37.4
500-999	2,153	2.2	1,567,991	12.0
1,000-2,499	175	0.2	176,201	1.4
2,500-4,999	0	0.0	0	0.0
5.000 <sup>+</sup>	3	0.0	654,483	5.0
Total	99,536	100.0	13,036,853	100.0

Source: 2001 General agricultural census, TSI

According to the 2001 general agricultural census, total number of agricultural enterprises in Konya is 99,536, and size of total land owned by these enterprises is 13,036,853 hectares. Of the total land, 9,800,483 hectares is cultivated as accounted for by irrigated lands of 2,924,138 decares, and non-irrigated lands of 6,876,345 decares. While number of agricultural enterprises in the province with no proprietary land is 1%, it is 3.5% for enterprises with proprietary land less than 5 decares. Agricultural enterprises in Konya are rather composed of businesses with proprietary land ranging from 20 to 499 decares. Number of enterprises with proprietary land of 20-499 decares is 82,619, this constitutes

83% of the whole set of enterprises. Number of enterprises in the province with land size more than 500 decares is 2,331, constituting 2.3% of total enterprises.

According to the 2001 general population census, 39.5% of enterprises in Konya engaged in agricultural operations represent businesses that carry out plant production, however 1.2% only carry out stock farming operations. 59.2% of agricultural enterprises in the province are engaged in both plant production and stock farming operations.

#### 4.1. Agricultural Production

The Gross Domestic Product (GDP) figures for Konya reveal that the biggest share in the provincial GDP (at current prices) is held by the agriculture sector for the period until 2000. Furthermore, it is noteworthy that while agriculture sector had a share of 35.2% in provincial GDP in 1987, it suffered a consistent decline and reached as low as 18.9% in 2001. This GVAe the agriculture sector the second rank after the transport and communication sector in the classification of GDP shares.

Agricultural production for Konya over the years is provided in Table 33 comparatively by region and country.<sup>2</sup>

**Table 33 Agricultural Productions by Year\***

	1987	1990	1999	2000	2001
Agriculture and Stock Farming	727	2,641	478,589	712,470	788,777
Silviculture	10	16	3,124	5,655	6,512
Fishing	2	10	1,969	2,683	3,998
<b>Total Agricultural Production of the Province (1)</b>	<b>739</b>	<b>2,667</b>	<b>483,682</b>	<b>720,808</b>	<b>799,287</b>
<b>Total Agricultural Production of Turkey (2)</b>	<b>13,314</b>	<b>68,692</b>	<b>11,851,055</b>	<b>17,540,631</b>	<b>21,521,043</b>
<b>Agricultural Production of the TR 52 Region (3)</b>	<b>-</b>	<b>3,184</b>	<b>651,357</b>	<b>952,517</b>	<b>1,102,549</b>
<b>(1) / (2) (%)</b>	<b>5.6</b>	<b>3.9</b>	<b>4.1</b>	<b>4.1</b>	<b>3.7</b>
<b>(1) / (3) (%)</b>	<b>-</b>	<b>83.8</b>	<b>74.3</b>	<b>75.7</b>	<b>72.5</b>
<b>Share of overall national agricultural production in GDP (%)</b>	<b>17.7</b>	<b>17.3</b>	<b>15.1</b>	<b>14.0</b>	<b>12.2</b>
<b>Share of overall provincial agricultural production in GDP (%)</b>	<b>35.2</b>	<b>27.5</b>	<b>25.0</b>	<b>23.3</b>	<b>18.9</b>

(\*): at current rates, billion TL

Source: TSI

As the table reveals, more than 98% of agricultural production of Konya is derived from farming and stock farming. While 98.7% of agricultural production is accounted for by

<sup>2</sup> GDP figures for 2001 and before and corresponding comments based on these figures presented in the report are free of any New TL and/or TL conversion.

farming and stock farming for the year 2001, this is followed by silviculture production (0.8%) and fishing production (0.5%).

Despite the share within GDP of agricultural production of Konya is in a consistent decline over the years, agriculture still stands as one of the crucial sectors within provincial economy. As a matter of fact, compared to the overall Turkish average, the share of agriculture within GDP is higher by 6.7 points. The share of the province's agricultural shares in overall agricultural production of the country highlights a decline during the 1987-2001 period. While the agricultural production of the province had a share of 5.6% in the country's overall agricultural production in 1987, this receded to 3.7% in 2001 due to the scale-down in agricultural production (another factor underlying the drop of Konya's agricultural production in overall country volume is the fact that Karaman district was promulgated as an independent province in 1989 and disassociated from the control of Konya. Total agricultural production of the TR52 Region composed by the Konya and Karaman provinces point to a share of 5.1% in overall agricultural production of Turkey for the year 2001.

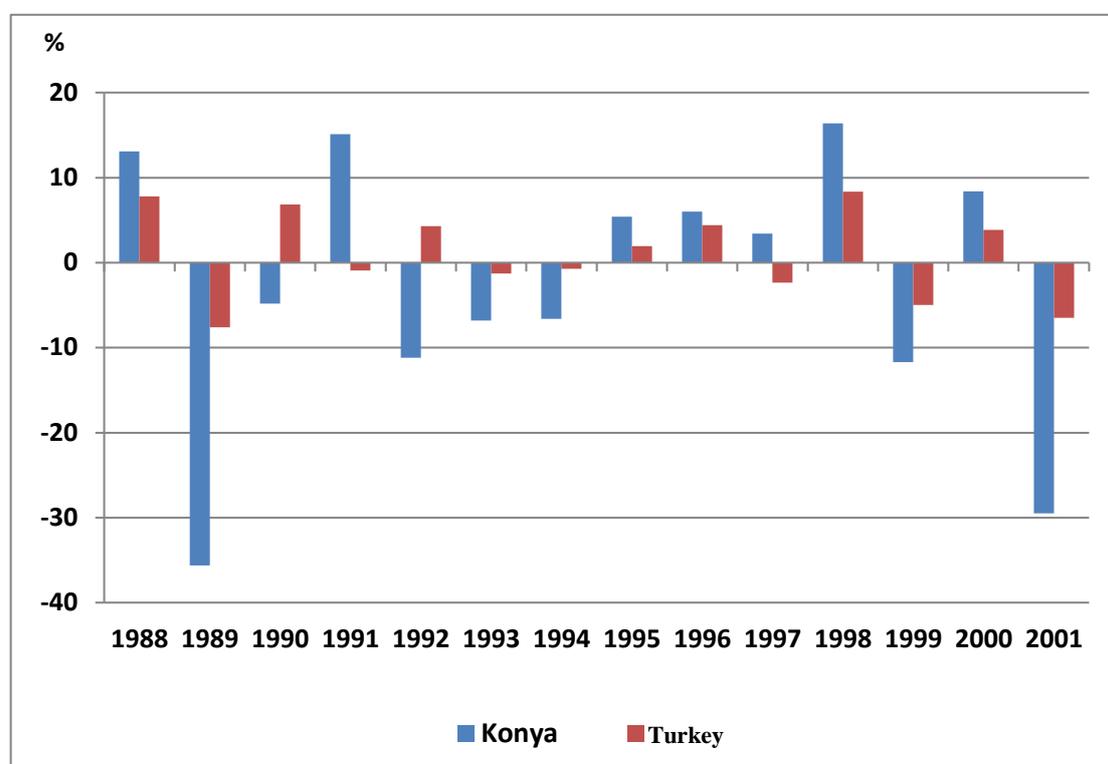
The growth rate of Konya's agricultural production exhibits a floating trend. Furthermore, the period 1987-2001 as a whole reveals a decline in the agricultural production of the province. As a matter of fact, while the agricultural GDP of Konya displayed an annual average decline of 4.2% for the 1987-2001 period (the agricultural GDP being 739 billion TL at current prices of 1987 receded to 413 billion TL in 2001), the overall agricultural production of the country scored an annual average rise of 0.8%. For the same period, average growth rate of Konya's total GDP realized at 0.6%. As a result, provincial contribution to the overall agricultural production of the country being 5.6% for the year 1987 receded to 3.7% in 2001.

**Table 34: GDP and Agriculture Sector Growth Rate (at fixed prices of the year 1987)**

Year	Growth Rate of Konya		Growth Rate of Turkey	
	Agricultural GDP	Total GDP	Agricultural GDP	Total GDP
1988	13.1	7.4	7.8	2.1
1989	-35.6	-12.8	-7.6	0.3
1990	-4.8	-0.65	6.82	9.26
1991	15.1	4.81	-0.9	0.93
1992	-11.2	6.49	4.29	5.98
1993	-6.8	-3.55	-1.28	8.04
1994	-6.6	-5.53	-0.72	-5.46
1995	5.4	3.05	1.96	7.19
1996	6.0	8.14	4.4	<b>7.01</b>
1997	3.4	7.56	-2.34	7.53
1998	16.4	8.64	8.37	3.09
1999	-11.7	-6.98	-4.99	-4.71
2000	8.4	9.47	3.86	7.36
2001	-29.5	-13.92	-6.51	-7.5
<b>Period 1987-2001 Average Annual Growth Rate (%)</b>	<b>-4.2</b>	<b>0.6</b>	<b>0.8</b>	<b>2.8</b>

Source: TSI

**Chart 8: Agricultural Growth Rate for Konya and Turkey (%) (at fixed prices)**



Despite agricultural production of Konya for the 1987-2001 period saw a negative average annual rise, the province outperformed the overall average agricultural growth rate of the

country in 1991, 1995, 1996, 1997, 1998 and 2000. The biggest loss in agricultural production of the province took place in 1989 and 2001. While the agricultural production of the province suffered a decline as high as 35.6% in 1989 compared to the preceding year, this realized at 29.5% in 2001. During the same periods, overall agricultural production of the country suffered a decline of 7.6% and 6.5% respectively.

The Gross Value Added (GVA) statistics for the agriculture sector reveal that, the agricultural gross value added of the TR52 Region composed of Konya and Karaman provinces has a national share of 5.6% GVA statistics by province are not published, yet statistics published on regional scale may be assessed as a major source of data for Konya. The GDP figures for Konya reflect that the agricultural GDP share of the TR52 region is at a level of 72%-75%. Therefore, assuming that the production pattern has not changed, it is possible to argue that almost 75% of GVA figures published on regional level is created by Konya itself. In this respect, assessments as to sectoral GVA figures by region are as follows:

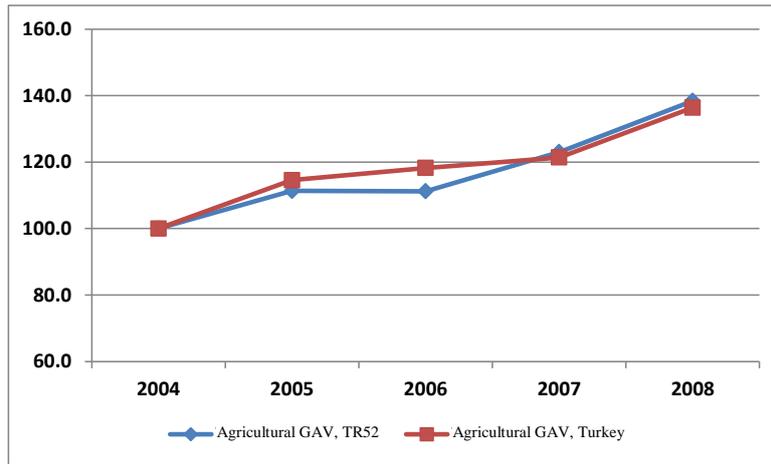
**Table 35: Agricultural Gross Value Added (GVA) (at current prices, thousand TL)**

	Turkey		TR52 Region		(3)/(1) (%)	(4)/(2) (%)	Turkey Agricultural Share in GVA (%)	TR52 Region Agricultural Share in GVA (%)
	Agricultural GVA (1)	Agricultural GVA (2)	Agricultural GVA (3)	Agricultural GVA (4)				
<b>2004</b>	52,997,645	494,884,058	2,931,178	11,895,953	5.5	2.4	10.7	24.6
<b>2005</b>	60,713,747	571,714,470	3,263,435	13,648,959	5.4	2.4	10.6	23.9
<b>2006</b>	62,662,754	668,418,265	3,260,428	15,503,281	5.2	2.3	9.4	21.0
<b>2007</b>	64,331,717	754,384,542	3,605,921	17,707,924	5.6	2.3	8.5	20.4
<b>2008</b>	72,274,585	854,585,214	4,056,912	20,270,377	5.6	2.4	8.5	20.0

Source: TSI

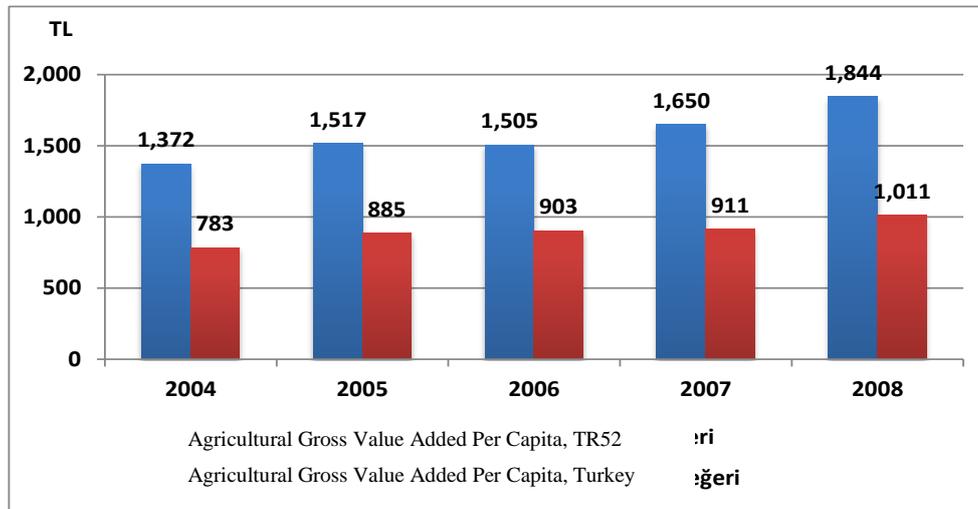
As the table reveals, agricultural GVA in the TR52 region has scored a rise of almost 38% during the 2004-2008 period and realized at a level of 4.1 billion TL in 2008. With such an added value, agriculture constitutes 20% of the overall gross value added throughout the region. While the overall national agricultural GVA displays a rise compared to the region during the same period (36%), the share of agriculture in total GVA is 8.5%.

**Chart 9: Agricultural GVA Trend in Turkey and the TR52 Region (2004=100)**



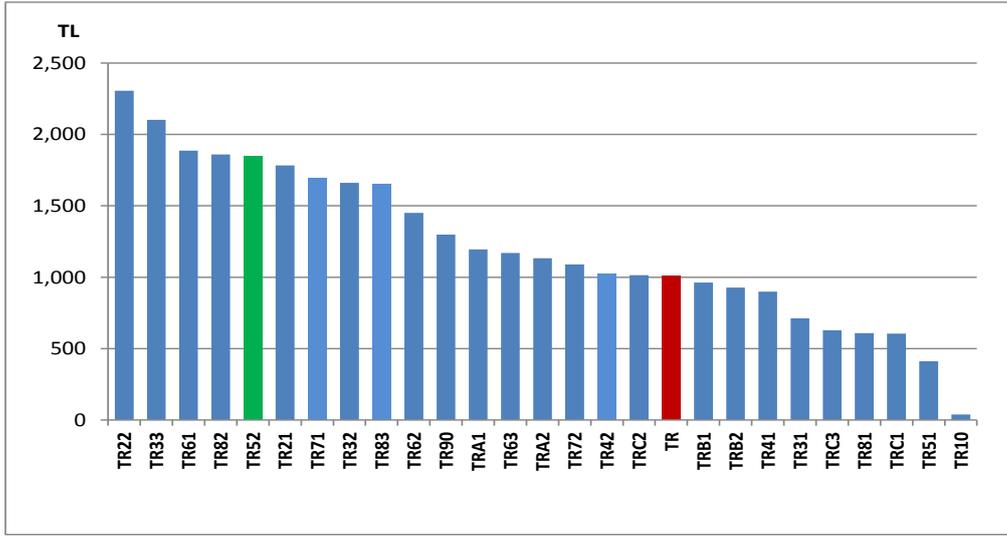
Gross agricultural value added per capita for the TR52 Region being TL 1,372 for 2004 enjoyed a rise of 34.4% during the 2004-2008 period and scored TL 1,844 in 2008. On the other hand, the overall Turkish agricultural gross value added per capita during the same period realized at 29.1% and reached TL 1,011 in 2008.

**Chart 10: Trend of Agricultural Gross Value Added Per Capita**



As to standings according to the agricultural gross value added per capita for Level 2 regions, gross value added for the TR52 Konya-Karaman region is ranked the fifth among 26 regions in 2008.

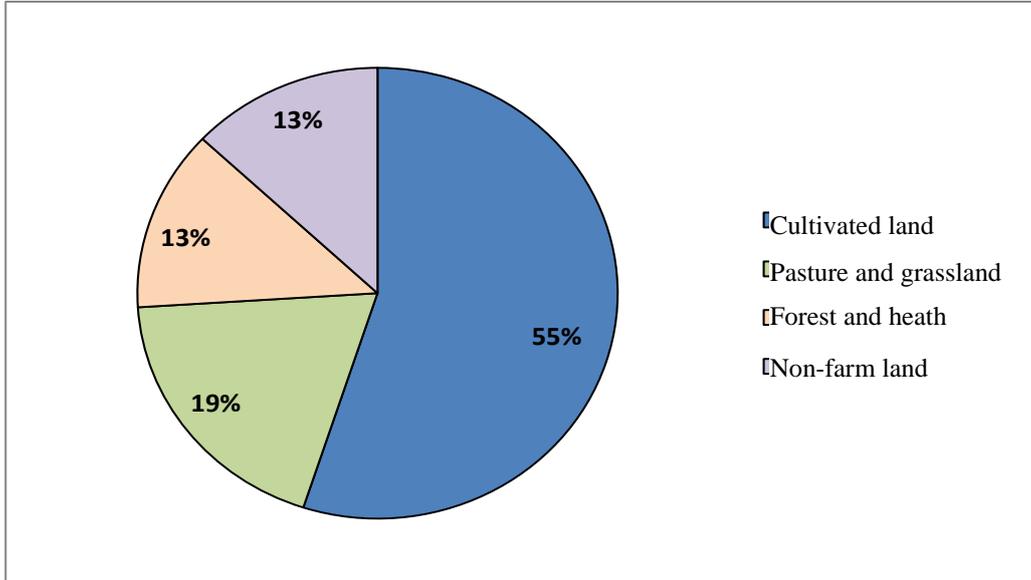
**Chart 11: Agricultural Gross Value Added per Capita for Level 2 Regions (2008)**



#### 4.2. Utilization of Agricultural Fields

Around 55.1% of provincial territory of Konya covering an area of 40,814 km<sup>2</sup> is utilized as cultivated land. While 18.7% of the provincial territory is covered by pastures and grasslands, and 13.2% by forests and heaths, around 13% is non-farm land.

**Chart 12: Breakdown of Provincial Land by Application**



Breakdown of provincial land by district is provided in Table 36. Districts having widest cultivated land is Cihanbeyli, Yunak, Karatay and Çumra. On the other hand, Karapınar, Cihanbeyli and Karatay districts stand out with their pastures and grasslands while Beyşehir,

Seydişehir and Hadim districts enjoy predominant forest lands and heaths. Districts to the south and south-western part of the provincial centre such as Hadim, Taşkent, Bozkır, Güneysınır, Yalılıyük, Seydişehir, Derebucak, Ahırlı and Akören have rather inferior cultivated lands compared to other districts. In this region hosting rather wider mountainous areas compared to districts to the north and north east of the province, forest and non-farm lands have a bigger share. In districts consisting of vast plains such as Ereğli, Cihanbeyli, Sarayönü and Yunak, there is almost no forest or heath area.

**Table 36: Breakdown of Provincial Territory of Konya by Districts (Ha) (2011)**

District	Agricultural Areas	Pasture and Grasslands	Forests and Heaths	Non-Farm Lands	Total Area
Karatay	171,960	89,000	663	20,195	<b>281,818</b>
Meram	62,064	17,000	40,901	48,056	<b>168,021</b>
Selçuklu	89,942	28,000	14,397	51,292	<b>183,631</b>
Ahırlı	5,736	352	21,444	6,206	<b>33,738</b>
Akören	22,323	6,200	20,416	7,116	<b>56,055</b>
Akşehir	34,382	5,266	23,467	22,185	<b>85,300</b>
Altınekin	77,966	33,572	0	5,000	<b>116,538</b>
Beyşehir	65,373	19,133	77,263	50,404	<b>212,173</b>
Bozkır	20,054	10,900	46,699	32,200	<b>109,853</b>
Cihanbeyli	219,992	98,484	0	45,000	<b>363,476</b>
Çeltik	39,338	10,916	0	8,829	<b>59,083</b>
Çumra	151,698	33,529	7,837	16,000	<b>209,064</b>
Derbent	15,488	511	11,636	2,583	<b>30,218</b>
Derebucak	2,792	0	41,581	5,452	<b>49,825</b>
Doğanhisar	23,794	3,136	20,757	4,000	<b>51,687</b>
Emirgazi	75,168	7,754	1,441	3,964	<b>88,327</b>
Ereğli	131,384	76,835	7,981	9,800	<b>226,000</b>
Güneysınır	29,000	1,500	11,438	10,300	<b>52,238</b>
Hadim	20,000	4,000	54,258	30,108	<b>108,366</b>
Halkapınar	7,500	19,563	11,414	8,363	<b>46,840</b>
Hüyük	21,022	3,000	15,074	15,847	<b>54,943</b>
İlgın	119,055	13,690	23,262	9,568	<b>165,575</b>
Kadınhanı	149,134	27,000	4,416	6,000	<b>186,550</b>
Karapınar	150,000	130,444	2,013	11,460	<b>293,917</b>
Kulu	138,139	32,500	0	35,000	<b>205,639</b>
Sarayönü	115,480	30,700	1,605	7,744	<b>155,529</b>
Seydişehir	40,333	4,790	62,182	28,952	<b>136,257</b>
Taşkent	5,900	7,200	16,650	13,013	<b>42,763</b>
Tuzlukçu	50,799	6,672	0	4,132	<b>61,603</b>
Yalılıyük	4,024	14	1,206	6,980	<b>12,224</b>
Yunak	188,020	39,800	188	6,098	<b>234,106</b>
<b>Total</b>	<b>2,247,860</b>	<b>761,461</b>	<b>540,189</b>	<b>531,847</b>	<b>4,081,357</b>

Source: Konya Provincial Directorate of Food, Agriculture and Stock Farming

Majority of provincial cultivated lands (97.6%) is employed for agriculture purposes. Almost 61% of the area employed as arable area undergoes cultivation and 39% represents fallow

area. Cereal production is performed in majority of cultivation areas. Orchards and vegetable gardens outside arable farming have minor shares as low as 1.4% and 1% respectively.

Table 37 shows distribution of provincial cultivated lands by district and application.

**Table 37: Breakdown of Cultivated Lands in Konya by Application**

District	Cultivated Area	Vegetable Garden	Orchard	Agricultural Land		
				Cultivated	Fallowed	Total
Karatay	171,960	585	260	102,761	68,354	171,115
Meram	62,064	4,375	642	32,455	24,592	57,047
Selçuklu	89,942	5,312	181	44,811	39,638	84,449
Ahırlı	5,736	9	911	3,867	949	4,816
Akören	22,323	53	110	17,400	4,760	22,160
Akşehir	34,382	693	2,808	30,450	431	30,881
Altınekin	77,966	278	31	69,706	7,951	77,657
Beyşehir	65,373	475	1,000	33,171	30,727	63,898
Bozkır	20,054	15	3,844	6,451	9,744	16,195
Cihanbeyli	219,992	250	7	153,635	66,100	219,735
Çeltik	39,338	235	287	31,967	6,849	38,816
Çumra	151,698	3,068	1,058	101,139	46,433	147,572
Derbent	15,488	257	102	6,182	8,947	15,129
Derebucak	2,792	0	33	1,043	1,716	2,759
Doğanhisar	23,794	194	1,328	14,700	7,572	22,272
Emirgazi	75,168	0	24	34,320	40,824	75,144
Ereğli	131,384	3,341	4,415	68,563	55,065	123,628
Güneşsınır	29,000	65	1,790	10,230	16,915	27,145
Hadim	20,000	100	7,600	885	11,415	12,300
Halkapınar	7,500	0	819	2,831	3,850	6,681
Hüyük	21,022	167	521	12,321	8,013	20,334
İlgin	119,055	421	513	67,698	50,423	118,121
Kadınhanı	149,134	50	95	104,010	44,979	148,989
Karapınar	150,000	1,205	203	92,879	55,713	148,592
Kulu	138,139	15	36	67,007	71,081	138,088
Sarayönü	115,480	71	73	79,998	35,338	115,336
Seydişehir	40,333	733	539	29,676	9,385	39,061
Taşkent	5,900	50	850	2,294	2,706	5,000
Tuzlukçu	50,799	55	236	31,092	19,416	50,508
Yalıhüyük	4,024	8	356	2,986	674	3,660
Yunak	188,020	121	606	92,148	95,145	187,293
<b>Total</b>	<b>2,247,860</b>	<b>22,201</b>	<b>31,278</b>	<b>1,348,676</b>	<b>845,705</b>	<b>2,194,381</b>

Source: Konya Provincial Directorate of Food, Agriculture and Stock Farming

Majority of arable areas of Konya is situated in Cihanbeyli district followed by Yunak, Karatay, Çumra, Karapınar, Kadınhanı, Kulu and Ereğli districts. Such 8 districts constitute

around 60% of arable areas throughout the province. Districts of the province with inferior arable areas are Derebucak followed by Yalıhöyük, Ahırlı, Halkapınar and Taşkent.

Orchards and vegetable gardens are primarily hosted by districts with rather more irrigable land such as Meram, Karatay, Akşehir, Beyşehir, Çumra, Ereğli, Güneysınır, Bozkır, Hadim, Ilgın and Seydişehir.

Provincial territory of Konya is commonly composed of clayey soil with high pH and lime, and low organic content. Unsuitable physical characteristics and unconscious cultivation sacrifice productive utilization of soil. Despite vast soil resources, Konya Plain has limited water resources. Dry farming is commonly conducted on arable crop areas. Development of alternative plant species besides cereals is of great significance for enhancement of the agriculture sector. Completion of the action plan under the Konya Plain Irrigation Project (KOP) designed for the Konya Closed Basin is expected to greatly cure the irrigation issue experienced by the agriculture sector.<sup>3</sup>

Currently, irrigable area in Konya is almost 1.6 million ha, constituting 74% of the total cultivated land. However, only a minor portion of the irrigable area is actually irrigated. As from 2011, actually irrigated area is 377 thousand ha, accounting for 23% of the irrigable area and 16.8% of the total cultivated land. Areas within the province receiving highest irrigation are located in the Meram, Altınekin, Seydişehir and Taşkent districts. Table 38 shows cultivated lands and irrigated areas in each district.

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<sup>3</sup> After the Southeastern Anatolian Project (GAP), the Konya Plain Irrigation Project (KOP) is the second major irrigation project of Turkey. Covering the Konya, Aksaray, Karaman and Niğde provinces as well, KOP constitutes 8% of the overall national territory and 13% of irrigable cultivated areas. KOP is comprised of a total of 16 projects as represented by 14 irrigation schemes, 1 service scheme and 1 energy scheme.

KOP is aimed at supplying service and industrial water demand, avoiding excessive use of ground water to secure a balanced groundwater level, conducting technological farming through land consolidation and local improvement practices on cultivation, boosting production and flourishing stock farming. It is proposed to transfer an annual water stock of 414 million m<sup>3</sup> from the Göksu basin to the Konya Plain under the Bağbaşı Dam and Blue Tunnel scheme. While 54% of irrigation projects have been set to operation, 3% are still under construction and 21% are at the Planning and Design phase.

With the completion of the scheme, around 70% of the Konya Plain will irrigable, and an annual energy generation capacity of 100 GWh will be attained.

**Table 38: Irrigated Cultivated Lands of Konya (Ha) (2011)**

District	Total Cultivated Land (Ha)	Irrigated Area (Ha)	Share (%)
Karatay	171,960	26,400	15,4
Meram	62,064	28,600	46,1
Selçuklu	89,942	13,850	15,4
Ahırlı	5,736	810	14,1
Akören	22,323	1,475	6,6
Akşehir	34,382	8,140	23,7
Altınekin	77,966	34,357	44,1
Beyşehir	65,373	12,900	19,7
Bozkır	20,054	2,480	12,4
Cihanbeyli	219,992	22,500	10,2
Çeltik	39,338	10,800	27,5
Çumra	151,698	56,200	37,0
Derbent	15,488	1,200	7,7
Derebucak	2,792	429	15,4
Doğanhisar	23,794	3,100	13,0
Emirgazi	75,168	255	0,3
Ereğli	131,384	26,300	20,0
Güneysinır	29,000	1,450	5,0
Hadim	20,000	2,390	12,0
Halkapınar	7,500	675	9,0
Hüyük	21,022	1,600	7,6
Ilgın	119,055	27,850	23,4
Kadınhanı	149,134	18,200	12,2
Karapınar	150,000	31,500	21,0
Kulu	138,139	1,900	1,4
Sarayönü	115,480	6,350	5,5
Seydişehir	40,333	14,600	36,2
Taşkent	5,900	1,850	31,4
Tuzlukçu	50,799	1,095	2,2
Yalıhüyük	4,024	670	16,7
Yunak	188,020	17,500	9,3
<b>Total</b>	<b>2,247,860</b>	<b>377,426</b>	<b>16,8</b>

Source: Konya Provincial Directorate of Food, Agriculture and Stock Farming

Available water resource potential in Konya is 2,848 hm<sup>3</sup> annually. Of this, 1,340 hm<sup>3</sup> is surface water and 1,508 hm<sup>3</sup> is groundwater. In Konya, cultivated lands are mainly irrigated by means of water extracted from underground. There are 60,073 wells utilizing groundwater in Konya. Of them, 19,002 are licensed, and 41,071 are non-licensed. Since safe groundwater reserve is already exceeded in the region, allocation of new wells is not possible. Despite this prohibition, excessive amount of water was extracted through non-licensed bore holes, leading to critical drop in groundwater level. Limited spread of modern irrigation methods such as drip irrigation, improper and unconscious irrigation, and poor drainage led to sodication in cultivated lands of Konya. These areas are exposed to the threat of getting arid and non-farm in the course of time. Keeping water above a particular

level and avoiding immediate water infiltration to ensure that plants better avail of groundwater is only possible through a controlled and supervised drainage method. Erection of a common and controlled drainage system in Konya is of great significance for the reduction of sodication. Sodication is observed along with Aksaray highway. Though there is currently no non-farm area, sodication constitutes a threat for agricultural operations in Konya. Decrease of groundwater in the İnoba plateau to the south west of the Karapınar district triggered a sudden depression of the earth crust culminating in a sink hole (obruk) formation. Full inauguration of the Konya Plain Project is expected to avert sink hole formations in the cultivated lands of the province due to both sodication and unconscious use of groundwater.

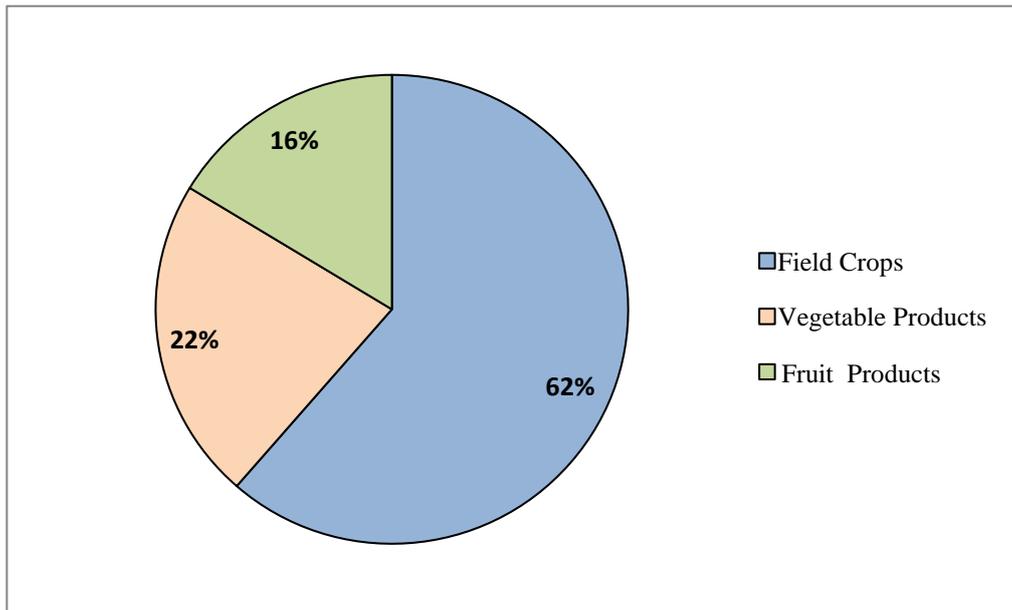
### **4.3. Plant Production**

The most developed component of agriculture in the province is plant production. Mostly arable crops and vegetable products are cultivated in Konya. Of crop plants cultivated in the province, wheat, barley, corn, rye, bean, sugar beet, poppy, cumin and potato are the major plants. Cereal cultivation and plant production based on the industrial sugar beet are major agricultural yields of the province. In addition to cereal and industrial plants, vegetable and fruit products are also major yields of agriculture in the province.

As at 2007, 62% of the production value of plants produced in Konya is accounted for by field crops followed by vegetables (22%) and fruits (16%). Provincial crop value compared to Turkey reveals that province's plant production differs from the common profile of the country. While both field crops and fruit & vegetable products have equal share in overall plant production of the country (almost 30-35%), field crops primarily represented by cereals and sugar beet constitute the major components of plant production in Konya.

Crop value realized in Konya during 2007 constitutes 66% of the TR52 Region total and 3.6% of overall country total. While total crop value of Konya accounts for 6.3% of the country total, and 82.7% of regional total, it is 2.6% and 65% for vegetable crops for the overall country and the TR52 region respectively. As to fruit production, the province accounts for 1.6% of the country total and 37.6% of the regional total.

**Chart 13: Breakdown of Crop Values for Konya (2007)**



Analysing the trend of crop values throughout the 2002-2010 period reveals that Konya enjoyed a rise of 128% for the said period, outdistanced by the overall country score, yet outperforming the average regional score. While overall crop value scored an increase of 148% during the 2002-2010 period in Turkey, production rise in the TR52 region was realized at 101% for the same period.

As at 2010, crop value generated by Konya accounts for 2.7% of the country total and 80.3% of the TR52 region total.

**Table 39: Plant Production Values (1000 TL)**

Year	Turkey (1)	The TR52 Region (2)	Konya (3)	(3) / (1)	(3) / (2)
2002	32,264,200	1,813,694	1,281,099	3.97	70.63
2003	40,569,390	2,600,093	1,669,794	4.12	64.22
2004	45,680,438	2,549,540	1,861,604	4.08	73.02
2005	50,939,687	2,725,764	1,916,378	3.76	70.31
2006	54,515,463	2,846,538	2,078,445	3.81	73.02
2007	56,787,424	3,084,862	2,016,446	3.55	65.37
2008	66,010,114	3,631,095	2,476,915	3.75	68.21
2009	68,267,486	4,019,466	2,974,795	4.36	74.01
2010	80,038,126	3,642,573	2,925,989	3.66	80.33

Source: TSI

An analysis of the marketed value of crops reveals that the marketed value of crops produced in Konya represents 80% of the overall crop value, and further that 59% of the crops so marketed are represented by field crops, 24% by vegetable products and 17% by fruit products.

While the marketed value of field crops produced in the province during the year 2007 constitutes 76% of the crop value, the value of vegetable and fruit products marketed constitutes 86% and 83% of the crop value respectively.

The crop and marketed values of plants cultivated in the province are comparatively shown in Table 40.

**Table 40: Plant Production Values (2007) (thousand TL)**

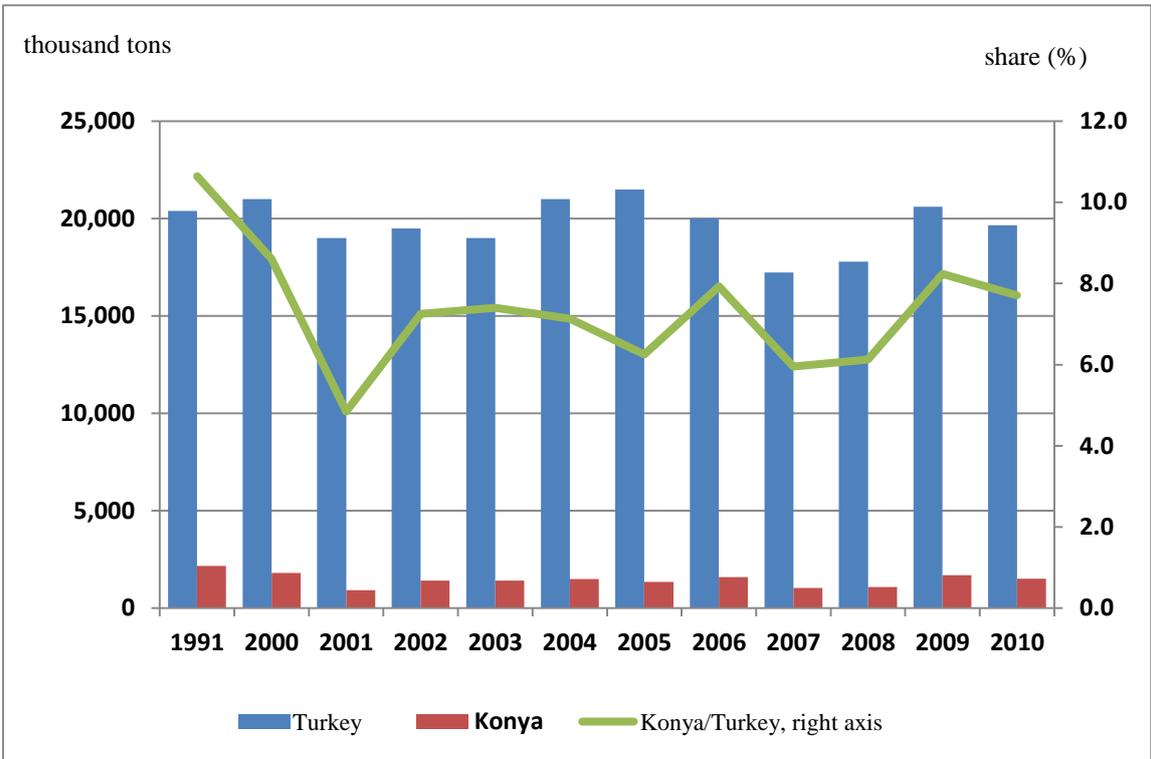
Products	Turkey				TR52 Region				Konya			
	Production Thousand Tons	Value	Marketed Value	%	Production Thousand Tons	Value	Marketed Value	%	Production Thousand Tons	Value	Marketed Value	%
<b>Agricultural Products</b>	<b>50,730</b>	<b>19,559,082</b>	<b>14,928,379</b>	<b>31.5</b>	<b>6.373</b>	<b>1,497,676</b>	<b>1,133,809</b>	<b>45.9</b>	<b>5,571</b>	<b>1,238,205</b>	<b>949,091</b>	<b>59.0</b>
Cereals	29,257	11,740,428	8,142,916	54.6	2.085	858.341	565.908	49.9	1,727	710,174	469,244	49.4
Potato, legume; edible roots and bulbs	5,511	3,456,595	2,645,387	17.7	314	224.354	165.944	14.6	207	148,000	109,877	11.6
Oilseeds	2,352	926.855	896.791	6.0	40	35.055	34.141	3.0	39	33,646	32,760	3.5
Tobacco	75	451.286	446.773	3.0	0	0	0	0.0	0	0	0	0.0
Sugar beet	12,415	1,179,398	1,155,810	7.7	3.920	372.440	364.991	32.2	3,594	341,386	334,559	35.3
Other forage crops	152	35.599	2.492	0.0	10	3.382	237	0.0	3	895	63	0.0
Raw plants employed in textile	868	1,676,318	1,609,247	10.8	0	0	0	0.0	0	0	0	0.0
Plants and forage crop seeds employed in perfumery, pharmaceuticals and other similar fields	101	92.603	28.963	0.2	3	4.103	2.589	0.0	3	4,103	2,589	0.3
<b>Vegetables</b>	<b>25,676</b>	<b>17,060,952</b>	<b>15,078,380</b>	<b>31.8</b>	<b>1.110</b>	<b>690.489</b>	<b>598.336</b>	<b>24.2</b>	<b>787</b>	<b>448,861</b>	<b>386,630</b>	<b>24.0</b>
Bulbs and Root Vegetables	3,222	2,080,461	1,823,436	12.1	547	320.889	273.103	46.6	457	244,728	206,466	53.4
Vegetables grown for fruit crop	20,855	13,571,290	11,996,059	79.6	504	312.618	275.074	46.0	322	196,469	173,531	44.9
Other Vegetables	1,599	1,409,201	1,258,885	8.4	58	56.981	10.985	1.8	8	7,664	6,633	1.7
<b>Fruits</b>	<b>15,555</b>	<b>20,179,860</b>	<b>17,386,573</b>	<b>36.7</b>	<b>789</b>	<b>876.698</b>	<b>736.596</b>	<b>29.8</b>	<b>211</b>	<b>329,380</b>	<b>273,312</b>	<b>17.0</b>
Grapes	3,613	2,939,197	2,468,926	14.2	247	263.997	221.758	30.1	63	88,328	74,196	27.2
Citrus fruits, pome fruits, stone fruits and other fruits	10,707	16,218,046	14,170,746	81.5	541	610.145	514.838	69.9	147	238,544	199,117	72.9
Medicinal Plants	89	289.611	21.226	0.1	1	256	0	0.0	1	2,508	0	0.0
Tee	1,145	733.005	725.675	4.2	0	0	0	0.0	0	0	0	0.0
<b>Total</b>	<b>91,960</b>	<b>56,799,894</b>	<b>47,393,333</b>	<b>100.0</b>	<b>8,272</b>	<b>3,064,862</b>	<b>2,468,741</b>	<b>100.0</b>	<b>6,569</b>	<b>2,016,446</b>	<b>1,609,034</b>	<b>100.0</b>

Source: TSI

**Production of Field Crops**

Crop production in 2010 was realized on 1,323,776 hectares of the provincial territory. Of 92.6 million tons of cereals produced in Turkey, 2.52% occurs in Konya. Wheat is the prominent product that stands out in cereal production of Konya. In Konya accounting for 10.6% (2.2 million tons) of total country production in 1991, wheat production has been suffering a decline recently over the last years, yet remains to be significant both in provincial and country scale. The province saw a wheat production capacity of 1.5 million tons in 2010, representing a major portion of 7.7% of the country’s total wheat production.

**Chart 14: Trend of Wheat Production in Konya**



Analysis into the productivity of wheat production in the province reveals that productivity level for the production of both durum wheat and other wheat types falls behind the country average. While durum wheat harvest in Konya is 2,430 kg per hectare in 2010, it is 2,170 kg for other wheat types that are outdistanced by the respective country averages of 2,600 kg/ha and 2,410 kg/ha. Another major constituent of provincial cereal production is barley. In 2010, around 653 thousand tons of barley was produced in 2010 in the province. Of this, 100 thousand tons represent malt barley production. While Konya accounts for 9% of total country production, it is 16.5% for malt barley production. Another noteworthy

product within the spectrum of cereal production in Konya is rye. With a capacity of 48 thousand tons, the province accounts for 13% of the country total. In rye production, Konya has a productivity level of 2,800 kg/ha, outdistancing the country average (2,590 kg/ha).

Another major component of field crop production in the province is industrial plants. In plant production, Konya accounts for 23.3% of the country production and 90% of regional production. The most important industrial product of the province is sugar beet. The province scored a sugar beet production of 4.9 million tons in 2010, accounting for 27.5% of country total and 90% of regional total. Productivity per hectare in sugar beet production exceeds country average by almost 20%.

In field crop production of the province, legumes have no major value both in terms of the land cultivated and the crop value. Beans, green beans, chick peas and lentils represent major components of legume production. Total crop value of legumes produced in the province accounts for 7.8% of country total and 70% of regional total.

In Konya, oil seed production constitutes a major constituent of field crops. Major components of oil seed production are sunflower (for oil production), poppy (seed) and safflower. In 2010, the province accounted for 4% of sunflower (for oil production) crops, 18.2% of poppy (seed) crops and 16.2% of safflower crops in Turkey.

In field crop production of the province throughout the year 2010, clover (green grass) represents the major fodder crop, and potato (other) represents the major tuber crop. Actual crop and productivity figures for Konya concerning the TR52 Region and Turkey are comparatively presented in Table 41.

Table 41: Agricultural Crops and Productivity (2010)

Products	Turkey (1)		The TR52 Region (2)		Konya (3)		Production %	
	Production Tons	Productivity kg/ha	Production Tons	Productivity kg/ha	Production Tons	Productivity kg/ha	(3)/(1)	(3)/(2)
<b>Total</b>	<b>71,822,879</b>	-	<b>9,062,647</b>	-	<b>8,123,840</b>	-	<b>11.31</b>	<b>89.64</b>
<b>Cereals</b>	<b>32,772,550</b>	-	<b>2,605,470</b>	-	<b>2,336,608</b>	-	<b>7.13</b>	<b>89.68</b>
Rye	365,560	2,590	53,240	2,640	48,275	2,800	13.21	90.67
Oat	203,870	2,330	18,010	2,150	14,212	2,240	6.97	78.91
Corn	4,310,000	7,260	128,039	6,790	103,430	6,680	2.40	80.78
Durum wheat	3,450,000	2,600	565,906	2,270	488,043	2,430	14.15	86.24
Wheat (other)	16,224,000	2,410	1,081,685	2,140	1,027,260	2,170	6.33	94.97
Malt barley	600,000	2,520	149,463	2,060	99,108	2,410	16.52	66.31
Barley (other)	6,650,000	2,380	606,324	2,150	554,870	2,190	8.34	91.51
<b>Legume</b>	<b>1,356,982</b>	-	<b>149,801</b>	-	<b>105,288</b>	-	<b>7.76</b>	<b>70.29</b>
Green pea	3,200	2,770	532	400	532	400	16.63	100.00
Chickpea	530,634	1,190	44,333	1,290	28,843	1,370	5.44	65.06
Dried beans	212,758	2,060	97,916	3,220	69,446	3,400	32.64	70.92
Lentil (green)	25,400	1,110	2,787	1,350	2,682	1,370	10.56	96.23
Lentil (red)	422,000	2,000	2,416	1,990	2,254	2,080	0.53	93.29
Common Vetch	121,676	1,270	1,465	1,400	1,339	1,370	1.10	91.40
Bitter Vetch	12,100	1,200	175	800	15	790	0.12	8.57
Fenugreek	200	1,210	177	1,240	177	1,240	88.50	100.00
<b>Industrial Plants</b>	<b>21,221,667</b>	-	<b>5,522,179</b>	-	<b>4,945,964</b>	-	<b>23.31</b>	<b>89.57</b>
Sugar beet	17,942,112	54,590	5,511,508	6,372	4,935,320	63,840	27.51	89.55
Poppy	33,555	650	6,122	780	6,122	780	18.24	100.00
Lupine	381	1,000	370	1,000	370	1,000	97.11	100.00
Cumin	12,587	740	4,179	910	4,152	910	32.99	99.35
<b>Oilseeds</b>	<b>2,969,477</b>	-	<b>65,166</b>	-	<b>63,278</b>	-	<b>2.13</b>	<b>97.10</b>
Poppy seed	36,910	710	6,734	850	6,734	850	18.24	100.00
Soy	86,540	3,550	141	2,610	141	2,610	0.16	100.00
Safflower	26,000	1,930	5,496	2,540	4,199	2,650	16.15	76.40
Rapeseed (canola)	106,450	3,410	276	2,230	226	2,290	0.21	81.88
Sunflower (for oil production)	1,170,000	2,120	46,874	1,990	46,764	2,000		99.77
Sunflower (for appetizer production)	150,000	1,670	5,545	1,950	5,165	2,070		4.00
Sesame	23,460	740	64	370	49	300		3.44
<b>Fodder Crops</b>	<b>6,843,914</b>	-	<b>360,793</b>	-	<b>336,351</b>	-	<b>4.91</b>	<b>93.23</b>
Alfalfa (green grass)	11,676,115	-	944,883	-	918,113	-		7.86
Sainfoin	1,508,930	22,470	34,292	-	29,912	-		1.98
Common vetch	4,018,984	-	99,306	-	94,502	-		2.35
Bitter vetch	80,005	43,980	13,406	-	2,506	-		3.13
Maize	12,446,450	-	471,467	44,060	433,602	44,420		3.48
<b>Tuber crops</b>	<b>6,658,289</b>	-	<b>359,238</b>	-	<b>336,351</b>	-	<b>5.05</b>	<b>93.63</b>
Onion	1,900,000	30,310	20,511	19,830	13,411	19,310		0.71
Dried garlic	76,936	8,090	4,450	8,210	751	1,373		0.98
Fodder beets	132,970	49,370	1,157	45,730	707	6,864		0.53
Potato (other)	4,513,453	3,251	332,870	36,430	321,482	3,740		7.12

Source: TSI

## **Vegetable Production**

Vegetable crop and harvest in Konya is quite inferior compared to other products. In 2010, vegetable production was performed on a total area of 17,854 hectares. In Konya with a total arable land capacity of 2,247,860 hectares, provincial territory for cropping vegetables constitutes as low as 0.8% of the total. Enhanced means of irrigation over the last years slightly upgraded vegetable production, yet this is still poor. Vegetable production in the province is primarily undertaken on lands surrounding district centres enjoying rather sophisticated means of irrigation. As is known, terrestrial climate prevails in the province. Due to climatic conditions, freezing occurs in late spring in the region followed by early cold in autumn. Therefore, crop period is limited, and vegetables get damage prior to maturation. This is the major factor hindering the development of vegetable production in the province.

In the province, vegetable production is rather oriented towards the local demand. While root and tuber plants lead overall provincial vegetable production, vegetables cropped for fruit harvest are ranked the second, and vegetables take the third rank. In 2010, a total of 317,205 tons of root and tuber crops were produced in the province. This accounts for 9.5% of the country total and 91.8% of the regional total. Carrot is the leading constituent of vegetable production of the province. In 2010, 353,020 tons of carrot were produced in 2010, representing 66.2% of total root and tuber crop production of the country. Fresh garlic production is ranked the second (430 tons of production).

Konya saw a production of 254,920 tons of vegetable crops (for fruit harvest) in 2010. This accounts for 1.3% of the country total and 64.8% of the TR52 region total. Of vegetables cropped for their fruit harvest in the province, table tomatoes (74,935 tons), sauce tomatoes (43,620 tons), water melons (44,601 tons), yellow melons (41,917 tons), and table cucumbers (43,620 tons) take the lead.

Despite rather inferior in production quantity, cultivated mushroom, spinach, red and white cabbage are other prominent constituents of vegetable production in the province.

Contribution of the province to the vegetable crop production of the TR52 Region and overall country is shown in Table 42 below.

**Table 42: Vegetable Production (2010)**

	Crops (tons)			Share (%)	
	Turkey (1)	The TR52 Region (2)	Konya (3)	(3) / (1)	(3) / (2)
<b>Total</b>	<b>25,667,195</b>	<b>849.809</b>	<b>634.170</b>	<b>2.47</b>	<b>74.63</b>
<b>Other Vegetables</b>	<b>1,655,747</b>	<b>52.168</b>	<b>8.045</b>	<b>0.49</b>	<b>15.42</b>
Cabbage (white)	491.228	15.824	1.415	0.29	8.94
Cabbage (red)	118.170	1.464	1.352	1.14	92.35
Head Lettuce	131.952	5.231	144	0.11	2.75
Heart Lettuce	226.144	6.977	649	0.29	9.30
Iceberg Lettuce	61.202	2.311	540	0.88	23.37
Spinach	218.291	12.718	1.608	0.74	12.64
Parsley	56.332	5.680	374	0.66	6.58
Cress	2.380	17	17	0.71	100.00
Peppermint	11.772	9	9	0.08	100.00
Cultivated mushroom	21.559	1.937	1.937	8.98	100.00
<b>Root and bulb fruits</b>	<b>3,897,843</b>	<b>404.206</b>	<b>371.205</b>	<b>9.52</b>	<b>91.84</b>
Spring onion	165.478	11.351	676	0.41	5.96
Onion	1,900,000	20.511	13.411	0.71	65.38
Green garlic	21.234	572	430	2.03	75.17
Dried garlic	76.936	4.450	751	0.98	16.88
Leek	244.812	10.046	2.361	0.96	23.50
Carrot	533.253	354.846	353.020	66.20	99.49
Turnip	1.693	60	60	3.54	100.00
Horse Radish	16.130	809	39	0.24	4.82
Red Radish	139.543	1.561	457	0.33	29.28
<b>Vegetables grown for fruit crop</b>	<b>20,113,605</b>	<b>393.435</b>	<b>254.920</b>	<b>1.27</b>	<b>64.79</b>
Table tomato	7,173,188	114.330	74.935	1.04	65.54
Paste tomato	2,878,812	44.120	43.620	1.52	98.87
Table cucumber	1,593,844	40.352	26.310	1.65	65.20
Gherkin	145.347	238	150	0.10	63.03
Russian cucumber	25.621	236	125	0.49	52.97
Sweet pepper	387.626	3.861	680	0.18	17.61
Green pepper	816.901	8.428	3.972	0.49	47.13
Okra	36.748	303	303	0.82	100.00
Eggplant	846.998	6.003	1.817	0.21	30.27
Summer squash	314.340	12.063	5.811	1.85	48.17
Pumpkin	89.368	3.007	678	0.76	22.55
Squash (for appetizer production)	26.694	2.130	1.160	4.35	54.46
Fres pea	90.191	29	29	0.03	100.00
Green beans	587.967	19.890	8.673	1.48	43.60
Fresh broad bean	41.929	14	14	0.03	100.00
Green shell beans	70.614	125	125	0.18	100.00
Melon	1,611,695	54.437	41.917	2.60	77.00
Watermelon	3,683,103	82.471	44.601	1.21	54.08

Source: TSI

### Fruit Production

In Konya, fruit production is undertaken on a total land of 33,790 hectares. Fruit land accounts for almost 1.5% of the province's total arable field. Fruit production is rather conducted in districts situated at the outskirts of Taurus, including Akşehir, Beyşehir, Ereğli,

Bozkur, Hadim, Iğın, Taşkent and Seydişehir. Relatively sophisticated means of irrigation at the outskirts of Taurus have created favourable conditions for fruit production.

Fruit production facts of and number of trees in Konya are comparatively presented in Table 43 for the TR52 Region and Turkey.

**Table 43: Fruit Production & Trees (2010)**

	Turkey (1)		The TR52 Region (2)		Konya (3)		Production (%)	
	Trees (pcs)	Production (tons)	Trees (pcs)	Production (tons)	Trees (pcs)	Production (tons)	(3)/(1)	(3)/(2)
<b>Total</b>	<b>787,934,570</b>	<b>16,354,948</b>	<b>15,708,301</b>	<b>449,927</b>	<b>6,698,659</b>	<b>219,793</b>	<b>1.34</b>	<b>48.85</b>
<b>Spice Plants (raw)</b>	<b>547,092</b>	<b>224,041</b>	<b>45,998</b>	<b>4,179</b>	<b>45,548</b>	<b>4,152</b>	<b>1.85</b>	<b>99.35</b>
Cumin	171,242	12,587	45,998	4,179	45,548	4,152	32.99	99.35
Others	375,850	211,454	-	-	-	-	-	-
<b>Tea (Fresh)</b>	-	<b>1,305,566</b>	-	-	-	-	-	-
<b>Stone Fruits and Pome Fruits</b>	<b>162,772,525</b>	<b>5,629,881</b>	<b>14,312,929</b>	<b>345,072</b>	<b>6,055,694</b>	<b>155,175</b>	<b>2.76</b>	<b>44.97</b>
Apple (Golden)	13,086,421	765,550	2,042,987	64,354	744,626	19,304	2.52	30.00
Apple (Starking)	19,748,770	1,224,431	4,942,426	131,884	822,805	25,018	2.04	18.97
Apple (Amasya)	5,253,293	240,787	264,278	6,955	186,988	4,935	2.05	70.96
Apple (Grannysmith)	2,688,090	74,200	534,754	9,719	217,823	3,520	4.74	36.22
Apple (Other)	13,574,624	295,032	1,964,566	19,355	1,024,255	14,450	4.90	74.66
Pea	12,285,512	380,003	486,322	10,742	234,392	5,918	1.56	55.09
Quince	3,622,125	121,085	68,071	1,259	40,351	875	0.72	69.50
Medlar	312,829	4,362	3,100	74	3,100	74	1.70	100.00
Peach (Nectarine)	1,544,944	49,558	17,245	176	1,065	9	0.02	5.11
Peach (Other)	15,883,222	489,845	236,403	3,824	119,762	1,865	0.38	48.77
Plum	9,662,964	240,806	393,700	9,262	183,317	4,136	1.72	44.66
Apricot	16,084,645	450,000	380,080	6,832	250,530	5,017	1.11	73.43
Wild Apricot	1,218,108	26,132	42,290	667	20,500	406	1.55	60.87
Cherry	22,149,565	417,905	2,051,030	35,000	1,469,108	27,570	6.60	78.77
Sour Cherry	7,524,076	194,989	743,432	31,788	662,642	30,257	15.52	95.18
Silverberry	398,955	4,600	51,060	702	33,900	422	9.17	60.11
Strawberry	116,792	299,940	5,855	10,976	5,855	10,976	3.66	100.00
Mulberry	2,986,657	75,096	46,295	640	33,575	417	0.56	65.16
Pomegranate	12,110,150	208,502	37,710	801	1,100	6	0.00	0.75
<b>Banana-Fig-Avocado-Kiwi</b>	<b>1,057,728</b>	<b>237,939</b>	<b>16,020</b>	<b>610</b>	-	-	-	-
<b>Citrus Fruits</b>	<b>35,500,349</b>	<b>3,572,376</b>	-	-	-	-	-	-
<b>Grapes</b>	<b>4,040,250</b>	<b>3,793,492</b>	<b>141,510</b>	<b>84,169</b>	<b>99,454</b>	<b>53,662</b>	<b>1.41</b>	<b>63.76</b>
Grape (T.-Seeded)	2,344,519	1,695,727	83,390	43,622	61,254	28,270	1.67	64.81
Grape (T.-Seedless)	355,089	553,803	193	67	193	67	0.01	100.00
Raisin (Seeded)	687,504	431,326	57,837	40,448	37,917	252,293	5.86	62.53
Raisin (Seedless)	653,138	1,112,636	90	32	90	32	0.00	100.00
<b>Grape (Other)</b>	<b>737,606</b>	<b>461,508</b>	<b>4,555</b>	<b>3,188</b>	<b>1,015</b>	<b>812</b>	<b>0.18</b>	<b>25.47</b>
Grape (Wine)	737,606	461,508	4,555	3,188	1,015	812	0.18	25.47
<b>Olive and Other Stone Fruits</b>	<b>583,279,020</b>	<b>2,435,711</b>	<b>1,187,289</b>	<b>12,709</b>	<b>496,948</b>	<b>5,992</b>	<b>0.25</b>	<b>47.15</b>
Almond	6,272,525	55,398	367,738	2,378	220,636	1,165	2.10	48.99
Walnut	9,084,431	178,142	444,631	7,994	235,782	4,542	2.55	56.82
Pistachio	40,179,589	128,000	133,230	466	40,530	285	0.22	61.16

T: For dining table H: For dehydrating

Source: TSI

In fruit production capacity of the province, stone fruits and pome fruits have a share of 70.6%, followed by grape (24.4%), other stone fruits (2.7%), spice plants (1.9%) and wine grape (0.4%). Citrus fruits that are typically cultivated in hot climatic conditions, and tea specific to the East Black Sea Region are not produced in the province. Fruit production of the province is primarily driven by apple, grape, sour cherry and cherry. In 2010, the province saw the production of 67,227 tons of apple, 53,662 tons of grape, 30,257 tons of sour cherry and 27,570 tons of cherry.

The contribution of Konya to total fruit production of the country reveals that the province holds a major share with cumin (33%) and sour cherry (15.5%). In regional scale, Konya assumes a great share in the overall TR52 Region, namely 100% of strawberry, medlar, and seedless table grape production; 99.4% of cumin production, and 70% and more of apple (other), quince, apricot and cherry production. Rate of total fruit production of Konya to the TR52 Region total is 48.9%.

#### **4.4. Organic Farming**

Due to the presence of vast non-irrigable areas in Konya, the province hosts undisturbed lands with high potential altitude preserving their natural mineral characteristics, making them quite favourable for organic farming. Ereğli, Akşehir, Yunak and Doğanhisar are the foremost districts of the province for organic farming. Organic farming operations in the province have markedly been flourishing since 1997, yet number of farmers engaged in organic farming has drastically declined since 2008, culminating in shrunk cultivated areas production. Organic farming performed on a total area of 4,191 hectares in 2004 yielded 14,053 tons of crops, pulling the total footprint of cultivated areas down to 1,196 hectares as at 2010 and culminating in a crop recession down to 9,680 tons. Accounting for 3.8% of total country production as at 2004, Konya's contribution dropped down to 0.7% in 2010.

**Table 44: Organic Farming Yields of Konya**

Years	Turkey (1)			TR52 (2)			Konya (3)			Contribution (%)	
	Number of Farmers	Cultivated Area (Ha)	Yield (tons)	Number of Farmers	Cultivated Area (Ha)	Yield (tons)	Number of Farmers	Cultivated Area (Ha)	Yield (tons)	(3)/(1)	(3)/(2)
2004	12.806	209.573	378.803	1.046	4.287	14.127	1.044	4.191	14.053	3.7	99.5
2005	14.401	203.811	421.934	992	3.459	11.297	988	2.698	11.164	2.7	98.8
2006	14.256	192.789	458.095	1.360	2.915	17.642	1.330	2.034	15.782	3.5	89.5
2007	16.276	174.283	568.128	1.470	3.653	41.461	1.395	2.746	39.239	6.9	94.6
2008	14.926	166.883	530.224	1.045	2.691	22.488	954	1.772	20.664	3.9	91.9
2009	35.565	501.641	983.715	1.137	2.540	17.987	1.049	1.631	15.990	1.6	88.9
2010	42.097	510.033	1,343,737	828	1.459	10.567	714	1.196	9.689	0.7	91.7

Source: TSI

#### 4.5. Agricultural Equipment

Natural factors have been the major determinants decisive in agricultural yield until the recent time. However, the image has started to transform since the midst of 1970's, yet it is still difficult to argue that agricultural mechanization and modernization is fully ensured at the moment. As previously mentioned, the obvious natural character of Konya is a vast and plain closed basin with poor water resources. Major factor decisive in productivity of the province's farming operations is the presence of water resources. Since means of irrigation could not satisfactorily be developed, great volume of land is fallowed, slowing down the rise in the yield.

While there were only 54 tractors in the province in 1948, this jumped to 3,8282 in 1961, 6,699 in 1970, and 25,979 in 1980 (including Karaman and Ermenek). Though Karaman and Ermenek were withdrawn from the provincial control, number of tractors throughout the province raised to 51,382 in 2010. Besides smooth lands suitable for tractor cultivation, rapid development of mechanization and modernization processes in agricultural production nationwide led to drastic increases in the number of tractors as well as other agricultural equipment. As a natural outcome of this, cultivated-planted area per tractor declined. While area per tractor was 247 hectares in 1970, this dropped even down to 44 hectares in 2010. On the other hand, this is 22 hectares for the whole country as at 2010, and 37 hectares for the TR52 Region.

While the analysis into the current situation of other modern agricultural equipment reveals that Konya is outperformed by both the country and the regional average in the use of agricultural equipment, the province outdistances both the regional and the country average in the operation of combine harvesters, disk type stubble ploughs, disk type tractor ploughs, combined beet and potato harvesters and beet lifters.

As at 2010, there are 1,305 combine harvesters and 51,382 tractors in Konya. Konya accounts for 9.5% of all combine harvesters and 4.7% of all tractors in the country. It is a noteworthy observation that Konya has a higher share, compared to other contributors, in the whole country stock of other agricultural equipment, particularly including sump pumps, disk type stubble ploughs, disk type tractor ploughs, combined dredges, combined seed drills and beet lifters.

Table 45 shows the agricultural equipment stock of Konya compared to the TR52 Region and Turkey.

**Table 45: Agricultural Equipment Stock of the Province (2010)**

	QUANTITY (pcs)			(%)	
	Turkey (1)	The TR52 Region (2)	Konya (3)	(3)/(1)	(3)/(2)
Combine harvesters	13,799	1,417	1,305	9.5	92.1
Tractors	1,096,683	63,375	51,382	4.7	81.1
Stubble drills	633	16	13	2.1	81.3
Furrow opener ploughs	63,926	3,953	2,030	3.2	51.4
Mistblowers	112,738	831	709	0.6	85.3
Balers	13,303	484	431	3.2	89.0
Brooders	1,390	59	59	4.2	100.0
Manure spreading machines	2,282	58	56	2.5	96.6
Drip irrigation facilities	245,823	13,198	8,212	3.3	62.2
Submersible pumps	131,009	16,923	14,998	11.4	88.6
Subsoilers	27,688	1,193	1,090	3.9	91.4
Disk type stubble ploughs	43,642	8,717	6,742	15.4	77.3
Disc harrows	213,909	9,839	8,556	4.0	87.0
Disk type tractor ploughs	67,954	11,941	11,069	16.3	92.7
Disk ploughs	351,866	11,885	11,206	3.2	94.3
Threshing sleds	18,875	1,015	815	4.3	80.3
Electro pumps	174,294	13,299	11,961	6.9	89.9
Animal drawn ploughs	137,526	4,697	3,607	2.6	76.8
Animal drawn seed drills	506	109	24	4.7	22.0
Animal and tractor drawn hoeing machines	138,413	7,079	3,826	2.8	54.0
Wooden plows	58,695	2,095	480	0.8	22.9
Agricultural buckets	38,867	3,596	3,488	9.0	97.0
Fertilizer broadcasters	366,781	39,665	31,266	8.5	78.8
Cultivators (Combined dredges)	25,971	2,812	2,706	10.4	96.2
Combined seed drills	187,459	31,760	26,089	13.9	82.1
Combined beet harvesters	4,271	1,242	1,026	24.0	82.6
Combined potato harvesters	766	75	75	9.8	100.0
Cream separators	214,482	24,042	18,709	8.7	77.8
Stubble ploughs	36,797	4,789	2,747	7.5	57.4

**Table 45 (Cont'd)**

	QUANTITY (pcs)			(%)	
	Turkey (1)	The TR52 Region (2)	Turkey (1)	The TR52 Region (2)	Turkey (1)
Moldboard type tractor ploughs	1,014,188	53,539	42,612	4.2	79.6
Incubators	1,000	30	30	3.0	100.0
Pto-driven atomizers	278,761	29,385	22,459	8.1	76.4
Cultivators	479,972	22,060	14,488	3.0	65.7
Rollers	81,094	5,921	4,474	5.5	75.6
Corn harvesters	863	48	23	2.7	47.9
Corn forage harvesters	16,627	779	598	3.6	76.8
Motor pumps (thermic)	193,032	11,104	8,763	4.5	78.9
Motor atomizers	73,745	4,527	3,757	5.1	83.0
Reapers	69,411	5,507	2,468	3.6	44.8
Hay forage harvesters	3,471	126	58	1.7	46.0
Hay rakes	99,729	2,504	2,264	2.3	90.4
Beet lifters	13,750	4,689	3,561	25.9	75.9
Potato planters	14,006	308	308	2.2	100.0
Potato lifters	18,679	313	312	1.7	99.7
Pneumatic drills	25,390	928	738	2.9	79.5
Rototiller	10,760	3,260	996	9.3	30.6
Trailers	1,061,656	74,582	61,125	5.8	82.0
Straw conveying and unloading machines	13,347	3,556	3,507	26.3	98.6
Centrifugal pumps	109,155	8,969	6,994	6.4	78.0
Straw thrashers	187,978	17,783	10,353	5.5	58.2
Haymaking machine with straw bailing function	13,662	2,199	1,945	14.2	88.4
Motor sprayers with stretcher, duster combined atomizers	14,188	598	392	2.8	65.6
Selectors (stationary or portable)	4,347	422	395	9.1	93.6
Grooving machines	15,032	2,746	2,740	18.2	99.8
Edge sprayers	591,373	254,425	20,078	3.4	7.9
Agricultural water tanks	198,031	7,165	5,909	3.0	82.5
Milking machines (portable)	208,457	14,647	13,633	6.5	93.1
Milking installations	7,280	222	214	2.9	96.4
Agricultural pest control planes	20	0	0	0.0	0.0
Stone pickers	530	78	73	13.8	93.6
Haymakers	12,015	392	343	2.9	87.5
Post hole diggers	4,920	617	512	10.4	83.0
Rotary cultivators	41,685	5,409	3,014	7.2	55.7
Graders	17,301	1,435	856	4.9	59.7
Tractor drawn mowers	61,248	2,115	1,891	3.1	89.4
Tractor drawn seed drills	117,276	17,804	13,305	11.3	74.7
Universal seed drills (mechanical)	61,487	623	538	0.9	86.4
Dryers	675	20	18	2.7	90.0
Dryers (excluding selectors)	13,215	8	0	0.0	0.0
Sprinklers	229,691	46,854	33,238	14.5	70.9
Feed grinders	22,140	905	787	3.6	87.0

Source: TSI

#### 4.6. Use of Chemical Fertilizers and Pesticides

Use of chemical fertilizers in the province has started to become widespread in 1970's. While amount of chemical fertilizers used was 33,500 tons in 1965, it raised to 347,445 tons in 2011. Konya accounts for 3.8% of total chemical fertilizer consumption throughout Turkey, and amount of fertilizers used per hectare in the province is 167 kg. On the other hand, this is 372 kg for the country.

**Table 46: Chemical Fertilizer Consumption of Konya (tons)**

	2010	2011	% variation
Turkey	9,592,752	9,074,308	-5.4
Konya	353,891	347,445	-1.8
Konya/Turkey (%)	3.7	3.8	-

Source: TSI and Konya Provincial Directorate for Food, Agriculture and Stock Farming

Another input that has direct relationship with plant production is pesticides. Use of pesticides to combat weeds, pests and cereals that are most commonly planted in the province has a crucial value. Upon combatting weeds and other pests through the use of pesticides, rises in the yield as high as 40-50% have been observed.

According to the data provided by the Provincial Directorate of Agriculture, application of agricultural pesticides in the province during 2011 amounted nearly 2,570 tons.

#### **4.7. Stock Farming**

The stock farming sector has a very crucial standing for our country in terms of adequate and balanced nutrition, contribution to the national income, foreign currency and exchange savings brought in, and for its being a major source of income for the substantial portion of rural population. According to the 2001 General Agricultural Census, there are 3.1 million active agricultural enterprises in Turkey. Of them, 67.4% are employed for plant production and stock farming, yet 2.4% for only stock farming.

Stock farming has a major standing within agricultural operations of Konya. Extending on a huge territory, provincial lands of Konya constitute a suitable background for stock farming. Limited precipitation and poor means of irrigation in the province have led farmers, already engaged in plant production, to stock farming as a secondary line of business. According to the 2001 General Agricultural Census, while 1.2% of agricultural enterprises in Konya are employed exclusively for stock farming, 59.2% see combined process of plant production and stock farming. While the number of ovines per agricultural enterprise in the province is above the country average, it is outdistanced by the latter when bovines are concerned. While each agricultural enterprise has an average share of 14.9 ovines and 2.4 bovines, this is 9 ovines and 3.6 bovines in average for the whole country.

Total output yielded by stock farming activities during 2010 in the province is 3.8 billion TL. Of this, 60% accounts for livestock and 40% animal products. While Konya constitutes 4.9% of total livestock production countrywide, its share is only 3.9% in the production of animal products.

**Table 47: Stock Farming, Production Values (million TL)**

	2002			2010		
	Stocks	Animal Products	Total	Stocks	Animal Products	Total
Turkey	10,471	9,400	19,871	46,873	38,128	85,001
TR52	522	627	1,149	2,513	1,706	4,218
Konya	432	468	900	2,277	1,506	3,783
Konya/Turkey (%)	4.1	5.0	4.5	4.9	3.9	4.5
Konya/TR52 (%)	82.8	74.6	78.3	90.6	88.3	89.7

Source: TSI

Stock farming activity is mainly performed by small-scale family businesses in Konya, however sophisticated stock farming establishments are progressively coming on stage thanks to latest developments in the province. In 2011, it was decided to set up the Organized Stock Farming Zone scheme in Konya. The scheme focuses on ensuring that establishments where animal products are produced are capable of employing new technologies, are designed on regions with sufficient level of infrastructure, animal products are produced hygienically and in adequate quantities, and that such enterprises turn out to be profitable businesses for producers. For this purpose, the 21.5 million-sqm treasury land located between the Saraçoğlu and Kaşıkhanı districts in Karatay has been assigned. For this Organized Stock Farming Zone with a stock processing capacity of 18,500 bovines and 9,000 ovines and with employment capacity of 459 people, 9 companies have applied during 2011. Such scheme proposed to be set up in Konya will constitute a precedent for Konya.

#### **4.7.1. Stock Inventory**

Primarily ovines make up of the stock inventory of Konya. And sheep breeding is ranked first among this mass of ovines. Stock farming, and in particular sheep and cattle breeding conducted in combination with plant production in the province, is a major economic source for farmer families.

## Bovine Inventory

Cattle holds the major share within bovine inventory of Konya, yet buffaloes are in minute amounts. According to the 2010 data of TSI, there are total of 460,814 cattles in the province. It is noteworthy that breeding cattles have the major weight in the overall cattle inventory of the province. Of this capacity, around 59% constitute breeding cattles, 33% cross-breed cattles and 8% indigenous race.

Ereğli stands out as the province hosting the highest amount of breeding cattles. Accommodating 60,135 breeding cattles, the district accounts for 22.3% of the total breeding cattle inventory of Konya. Table 48 shows the breakdown of total cattle inventory of Konya by district.

**Table 48: Bovine Inventory of Konya (2010)**

District	Breeding		Cross-Breed		Indigenous		Total	
	pcs	%	pcs	%	pcs	%	pcs	%
Karatay	13.070	4.84	20.473	13.37	2.850	7.55	<b>36,393</b>	<b>7.90</b>
Meram	14.260	5.28	13.907	9.08	2.437	6.45	<b>30,604</b>	<b>6.64</b>
Selçuklu	2.384	0.88	7.682	5.02	660	1.75	<b>10,726</b>	<b>2.33</b>
Ahırlı	4.020	1.49	1.250	0.82	762	2.02	<b>6,032</b>	<b>1.31</b>
Akören	1.755	0.65	1.298	0.85	533	1.41	<b>3,586</b>	<b>0.78</b>
Akşehir	9.250	3.43	10.750	7.02	3.100	8.21	<b>23,100</b>	<b>5.01</b>
Altınekin	1.970	0.73	5.200	3.39	255	0.68	<b>7,425</b>	<b>1.61</b>
Beyşehir	17.000	6.30	13.000	8.49	1.190	3.15	<b>31,190</b>	<b>6.77</b>
Bozkır	2.730	1.01	4.620	3.02	700	1.85	<b>8,050</b>	<b>1.75</b>
Cihanbeyli	3.295	1.22	7.735	5.05	4.870	12.89	<b>15,900</b>	<b>3.45</b>
Çeltik	1.891	0.70	936	0.61	303	0.80	<b>3,130</b>	<b>0.68</b>
Çumra	34.391	12.74	3.311	2.16	1.199	3.17	<b>38,901</b>	<b>8.44</b>
Derbent	1.340	0.50	875	0.57	690	1.83	<b>2,905</b>	<b>0.63</b>
Derebucak	692	0.26	337	0.22	196	0.52	<b>1,225</b>	<b>0.27</b>
Doğanhisar	4.960	1.84	535	0.35	885	2.34	<b>6,380</b>	<b>1.38</b>
Emirgazi	12.631	4.68	3.121	2.04	149	0.39	<b>15,901</b>	<b>3.45</b>
Ereğli	60.135	22.28	5.758	3.76	958	2.54	<b>66,851</b>	<b>14.51</b>
Güneysinır	5.274	1.95	944	0.62	17	0.05	<b>6,235</b>	<b>1.35</b>
Hadim	984	0.36	701	0.46	922	2.44	<b>2,607</b>	<b>0.57</b>
Halkapınar	3.660	1.36	133	0.09	0	-	<b>3,793</b>	<b>0.82</b>
Hüyük	5.293	1.96	604	0.39	411	1.09	<b>6,308</b>	<b>1.37</b>
İlgın	13.447	4.98	12.727	8.31	3.468	9.18	<b>29,642</b>	<b>6.43</b>
Kadınhanı	12.810	4.75	7.660	5.00	97	0.26	<b>20,567</b>	<b>4.46</b>
Karapınar	18.870	6.99	8.905	5.81	751	1.99	<b>28,526</b>	<b>6.19</b>
Kulu	853	0.32	3.818	2.49	5.780	15.30	<b>10,451</b>	<b>2.27</b>
Sarayönü	4.785	1.77	5.952	3.89	380	1.01	<b>11,117</b>	<b>2.41</b>
Seydişehir	8.155	3.02	5.200	3.39	3.208	8.49	<b>16,563</b>	<b>3.59</b>
Taşkent	563	0.21	427	0.28	269	0.71	<b>1,259</b>	<b>0.27</b>
Tuzlukçu	4.725	1.75	1.875	1.22	32	0.08	<b>6,632</b>	<b>1.44</b>
Yalıhüyük	602	0.22	282	0.18	0	-	<b>884</b>	<b>0.19</b>
Yunak	4.071	1.51	3.159	2.06	701	1.86	<b>7,931</b>	<b>1.72</b>
<b>Total</b>	<b>269.866</b>	<b>100.0</b>	<b>153.175</b>	<b>100.0</b>	<b>37.773</b>	<b>100.0</b>	<b>460.814</b>	<b>100.0</b>

Source: TSI

Ereğli, Çumra and Karatay districts take the lead in total cattle inventory of the province. Of this total inventory, Ereğli holds a share of 14.5%, Çumra 8.1%, and Karatay 7.9%. On the other hand, low shares within this inventory are held by Yalıhüyük (0.2%), Taşkent (0.3%) and Derebucak (0.3%).

Comparing the cattle formation of the province to the country profile reveals that the breeding cattle inventory rate of the province for 2010 outdistances the Turkish average (36.9%), yet both cross-breed and indigenous races fall behind.

Historical trend of the bovine inventory of Konya reveals that number of cattles increased by a total of 106,061 members during the 1991-2010 period, and that growth in overall bovine inventory during the same period is around 30%. On the other hand, cattle inventory in the overall country suffered a decline of 4.5% during the same period. The share of Konya accounting for 3% of the cattle inventory of the country as at 1991 scored a constant growth over the years and reached 4% in 2010 (Table 49).

**Table 49: Cattle Inventory Trend**

	Turkey		Konya		Konya/Turkey (%)
	pcs	% change	pcs	% change	
1991	11,972,923	-	354,773	-	3.0
1995	11,789,000	-1.5	367,070	3.5	3.1
2000	10,761,000	-8.7	390,640	6.4	3.6
2005	10,526,440	-2.2	334,080	-14.5	3.2
2.010	11,433,128	8.6	460,814	37.9	4.0

Source: TSI

### **Ovine Inventory**

Primarily sheep makes up of the ovine inventory of Konya. Of this inventory, 92% is made up of by sheep and 8% by goats.

As at 2010, there are a total of 1,349,249 sheep within the province. Of this inventory, 94% are indigenous sheep and 6% are merino sheep. Breakdown of sheep inventory by district reveals that, central provinces of the province, namely Karatay, Meram and Selçuklu boast the biggest share in the inventory followed by Karapınar, Ereğli, Cihanbeyli and Çumra. Together with the central district, above four districts account for around 60% of the provincial sheep inventory.

As at 2010, number of goats in the province is 115,508. Of them, 97% are hair goats and 3% are angora goats. Provincial goat inventory is primarily accounted for by Iğın followed by Seydişehir, Taşkent and central districts (Karatay, Meram and Selçuklu). Together with the central district, these three districts account for around 40% of the provincial goat inventory.

Table 50 shows the breakdown of ovine inventory in Konya by district.

**Table 50: Ovine Inventory of Konya (2010)**

District	Sheep						Goat					
	Indigenous		Merino		Total		Hair		Angora		Total	
	pcs	%	pcs	%	pcs	%	pcs	%	pcs	%	pcs	%
Karatay	116,588	9.21	499	0.60	<b>117,087</b>	<b>8.68</b>	3,825	3.42	0	-	<b>3,825</b>	<b>3.31</b>
Meram	70,357	5.56	0	-	<b>70,357</b>	<b>5.21</b>	5,650	5.04	0	-	<b>5,650</b>	<b>4.89</b>
Selçuklu	78,128	6.17	0	-	<b>78,128</b>	<b>5.79</b>	4,700	4.20	0	-	<b>4,700</b>	<b>4.07</b>
Ahırlı	2,670	0.21	0	-	<b>2,670</b>	<b>0.20</b>	2,005	1.79	0	-	<b>2,005</b>	<b>1.74</b>
Akören	8,950	0.71	0	-	<b>8,950</b>	<b>0.66</b>	3,343	2.98	222	6.34	<b>3,565</b>	<b>3.09</b>
Akşehir	14,850	1.17	2,150	2.57	<b>17,000</b>	<b>1.26</b>	2,440	2.18	60	1.71	<b>2,500</b>	<b>2.16</b>
Altınekin	32,700	2.58	17,180	20.57	<b>49,880</b>	<b>3.70</b>	520	0.46	0	-	<b>520</b>	<b>0.45</b>
Beyşehir	15,000	1.19	0	-	<b>15,000</b>	<b>1.11</b>	5,300	4.73	0	-	<b>5,300</b>	<b>4.59</b>
Bozkır	3,230	0.26	0	-	<b>3,230</b>	<b>0.24</b>	5,100	4.55	0	-	<b>5,100</b>	<b>4.42</b>
Cihanbeyli	99,328	7.85	1,140	1.36	<b>100,468</b>	<b>7.45</b>	1,446	1.29	131	3.74	<b>1,577</b>	<b>1.37</b>
Çeltik	6,640	0.52	9,950	11.91	<b>16,590</b>	<b>1.23</b>	0	-	0	-	<b>0</b>	<b>-</b>
Çumra	88,700	7.01	2,610	3.12	<b>91,310</b>	<b>6.77</b>	3,101	2.77	0	-	<b>3,101</b>	<b>2.68</b>
Derbent	2,550	0.20	0	-	<b>2,550</b>	<b>0.19</b>	2,000	1.79	0	-	<b>2,000</b>	<b>1.73</b>
Derebucak	1,730	0.14	0	-	<b>1,730</b>	<b>0.13</b>	7,000	6.25	0	-	<b>7,000</b>	<b>6.06</b>
Doğanhisar	4,950	0.39	100	0.12	<b>5,050</b>	<b>0.37</b>	1,030	0.92	0	-	<b>1,030</b>	<b>0.89</b>
Emirgazi	34,800	2.75	0	-	<b>34,800</b>	<b>2.58</b>	2,690	2.40	0	-	<b>2,690</b>	<b>2.33</b>
Ereğli	125,600	9.92	0	-	<b>125,600</b>	<b>9.31</b>	2,900	2.59	0	-	<b>2,900</b>	<b>2.51</b>
Güneysınır	9,050	0.72	0	-	<b>9,050</b>	<b>0.67</b>	6,850	6.12	0	-	<b>6,850</b>	<b>5.93</b>
Hadim	5,943	0.47	69	0.08	<b>6,012</b>	<b>0.45</b>	4,829	4.31	0	-	<b>4,829</b>	<b>4.18</b>
Halkapınar	8,047	0.64	0	-	<b>8,047</b>	<b>0.60</b>	1,283	1.15	0	-	<b>1,283</b>	<b>1.11</b>
Hüyük	4,490	0.35	0	-	<b>4,490</b>	<b>0.33</b>	575	0.51	0	-	<b>575</b>	<b>0.50</b>
Iğın	73,598	5.81	4,296	5.14	<b>77,894</b>	<b>5.77</b>	9,661	8.63	1,895	54.08	<b>11,556</b>	<b>10.00</b>
Kadınhanı	53,800	4.25	16,350	19.57	<b>70,150</b>	<b>5.20</b>	6,280	5.61	0	-	<b>6,280</b>	<b>5.44</b>
Karapınar	183,250	14.48	23,850	28.55	<b>207,100</b>	<b>15.35</b>	3,878	3.46	1,196	34.13	<b>5,074</b>	<b>4.39</b>
Kulu	78,768	6.22	0	-	<b>78,768</b>	<b>5.84</b>	1,160	1.04	0	-	<b>1,160</b>	<b>1.00</b>
Sarayönü	50,936	4.02	0	-	<b>50,936</b>	<b>3.78</b>	1,382	1.23	0	-	<b>1,382</b>	<b>1.20</b>
Seydişehir	37,080	2.93	344	0.41	<b>37,424</b>	<b>2.77</b>	10,590	9.46	0	-	<b>10,590</b>	<b>9.17</b>
Taşkent	6,200	0.49	0	-	<b>6,200</b>	<b>0.46</b>	10,370	9.26	0	-	<b>10,370</b>	<b>8.98</b>
Tuzlukçu	10,276	0.81	2,384	2.85	<b>12,660</b>	<b>0.94</b>	350	0.31	0	-	<b>350</b>	<b>0.30</b>
Yalıhüyük	230	0.02	0	-	<b>230</b>	<b>0.02</b>	0	-	0	-	<b>0</b>	<b>-</b>
Yunak	37,273	2.94	2,614	3.13	<b>39,887</b>	<b>2.96</b>	1,746	1.56	0	-	<b>1,746</b>	<b>1.51</b>
<b>Total</b>	<b>1,265,712</b>	<b>100</b>	<b>83,536</b>	<b>100</b>	<b>1,349,248</b>	<b>100</b>	<b>112,004</b>	<b>100</b>	<b>3,504</b>	<b>100</b>	<b>115,508</b>	<b>100</b>

Source: TSI

Both sheep and hair goat inventory within ovine breeding activity of the province has consistently declined over the years. As a matter of fact, while sheep inventory of Konya suffered a drop of 41% during the 1991-2010 period, goat inventory shrank by 65%. While

sheep inventory of the overall country shrank by 43% during the same period, contracting in goat inventory was 42%.

**Table 51: Trend of Ovine Inventory of Konya**

Year	Sheep			Hair goat		
	pcs	change		pcs	change	
		pcs	%		pcs	%
1991	2,297,273	-	-	330,273	-	-
1995	1,849,800	-447,473	-19.5	323,960	-6,313	-1.9
2000	1,613,930	-235,870	-12.8	243,860	-80,100	-24.7
2005	1,328,401	-285,529	-17.7	135,552	-108,308	-44.4
2.010	1,349,248	20,847	1.6	115,508	-20,044	-14.8

Source: TSI

## Fowl Inventory

Fowl breeding in Konya is mainly focussed on egg poultry. Egg poultry is conducted in all districts, particularly in the central districts of the province, namely Karatay, Meram and Selçuklu. In the province with limited broiler poultry activity, Akşehir and Ereğli stand out in this segment. Breeding of other fowls (duck, turkey, goose) is almost zero (Table 52).

**Table 52: Fowl Inventory by Districts (2010)**

District	Laying Hens	Broiler Hens	Turkey	Goose	Duck
Karatay	2,243,594	-	4,000	1,500	520
Meram	3,415,000	-	2,000	1,170	432
Selçuklu	628,255	-	860	305	204
Ahırlı	3,250	-	200	45	15
Akören	37,500	-	260	35	35
Akşehir	205,000	583,300	3,500	1,200	1,400
Altınekin	5,000	-	1,510	1,250	-
Beyşehir	4,500	-	-	-	-
Bozkır	1,750	-	150	300	200
Cihanbeyli	30,000	-	5,600	650	450
Çeltik	6,000	-	500	400	350
Çumra	950,000	-	6,300	4,850	400
Derbent	1,500	-	50	30	50

Table 52 (cont'd)

District	Laying Hens	Broiler Hens	Turkey	Goose	Duck
Derebucak	5,500	-	-	-	12
Doğanhisar	8,000	-	-	100	-
Emirgazi	10,600	-	16,300	780	290
Ereğli	323,000	150,000	2,750	256	240
Güneysinır	22,200	-	400	-	60
Hadim	7,500	-	50	22	18
Halkapınar	3,200	-	30	12	30
Hüyük	7,350	-	423	76	82
Ilgın	64,825	-	3,160	80	245
Kadınhanı	23,616	4,000	3,857	986	278
Karapınar	12,600	-	1,110	173	136
Kulu	23,631	-	2,500	700	250
Sarayönü	650,000	-	170	-	-
Seydişehir	7,200	-	900	770	1,400
Taşkent	2,000	-	-	-	-
Tuzlukçu	8,333	3,148	1,323	195	543
Yalıhüyük	2,400	-	26	38	18
Yunak	10,000	-	5,500	1,100	300
<b>Total</b>	<b>8,723,304</b>	<b>740,448</b>	<b>63,429</b>	<b>17,023</b>	<b>7,958</b>

Source: TSI

### Bee-keeping

Bee-keeping is a traditional activity in Konya. In mid 1960, it was started to employ modern beehives and introduce modern bee-keeping methods in the province. While there were around 64,000 beehives in 1991, this raised to 86,522 in 2000 yet dropped down to 80,745 in 2010. While beehive inventory of the province was 1.9% of the whole country, this suffered a decline in 2010 and recessed to 1.4%.

Number of villages engaged in bee-keeping in the province is 338. These villages are primarily located in central districts of the province, namely Karatay, Meram and Selçuklu followed by Beyşehir, Seydişehir and Hadim. As at 2010, total number of beehives is accounted for by the central districts of Karatay (7.4%), Meram (8.9%) and Selçuklu (6.8%), followed by Beyşehir (9.2%), Seydişehir (8.6%) and Hadim (8%). Almost all beehives in the province (97%) are indigenous, and as low as 3% of the inventory is old beehives. Table 53 shows the breakdown of bee-keeping activities in Konya by district

**Table 53: Bee-keeping Activity by District (2010)**

District	Number of Villages	Number of Beehives			Honey Production (tons)	Beewax Production (tons)
		New	Old	Total		
Karatay	25	4,215	90	4,305	30,996	3.0
Meram	30	10,950	145	11,095	79,880	7.8
Selçuklu	23	5,985	19	6,004	43,240	4.2
Ahırlı	8	1,000	10	1,010	15,000	0.1
Akören	10	400	205	605	6,000	0.5
Akşehir	19	4,152	0	4,152	40,000	0.5
Altınekin	4	130	0	130	1,500	0.0
Beyşehir	31	2,581	0	2,581	52,800	5.0
Bozkır	13	10,000	360	10,360	164,000	3.6
Cihanbeyli	4	170	11	181	1,800	0.0
Çeltik	2	110	0	110	1,600	0.1
Çumra	14	7,050	90	7,140	107,100	6.5
Derbent	8	900	0	900	11,000	2.0
Derebucak	7	1,300	115	1,415	14,150	1.2
Doğanhisar	7	2,890		2,890	32,500	1.1
Emirgazi	5	45	20	65	1	0.1
Ereğli	10	4,675	0	4,675	65,000	4.5
Güneysinır	12	820	40	860	8,600	0.9
Hadim	27	6,200	1,500	7,700	90,500	7.3
Halkapınar	6	470	0	470	4,230	0.1
Hüyük	10	987	0	987	12,831	0.8
İlgın	7	3,049	0	3,049	51,833	3.0
Kadınhanı	3	200	0	200	5,250	0.2
Karapınar	3	307	0	307	4,890	0.9
Kulu	4	310	0	310	4,650	0.0
Sarayönü	6	450	0	450	9,000	0.1
Seydişehir	29	6,500	0	6,500	56,000	6.2
Taşkent	8	902	62	964	12,100	0.8
Tuzlukçu	2	1,300	0	1,300	20,800	1.2
Yalıhüyük	1	30	0	30	1	0.0
Yunak	0	0	0	0	0	0.0
<b>Total</b>	<b>338</b>	<b>78,078</b>	<b>2,667</b>	<b>80,745</b>	<b>947,252</b>	<b>61.5</b>

Source: TSI

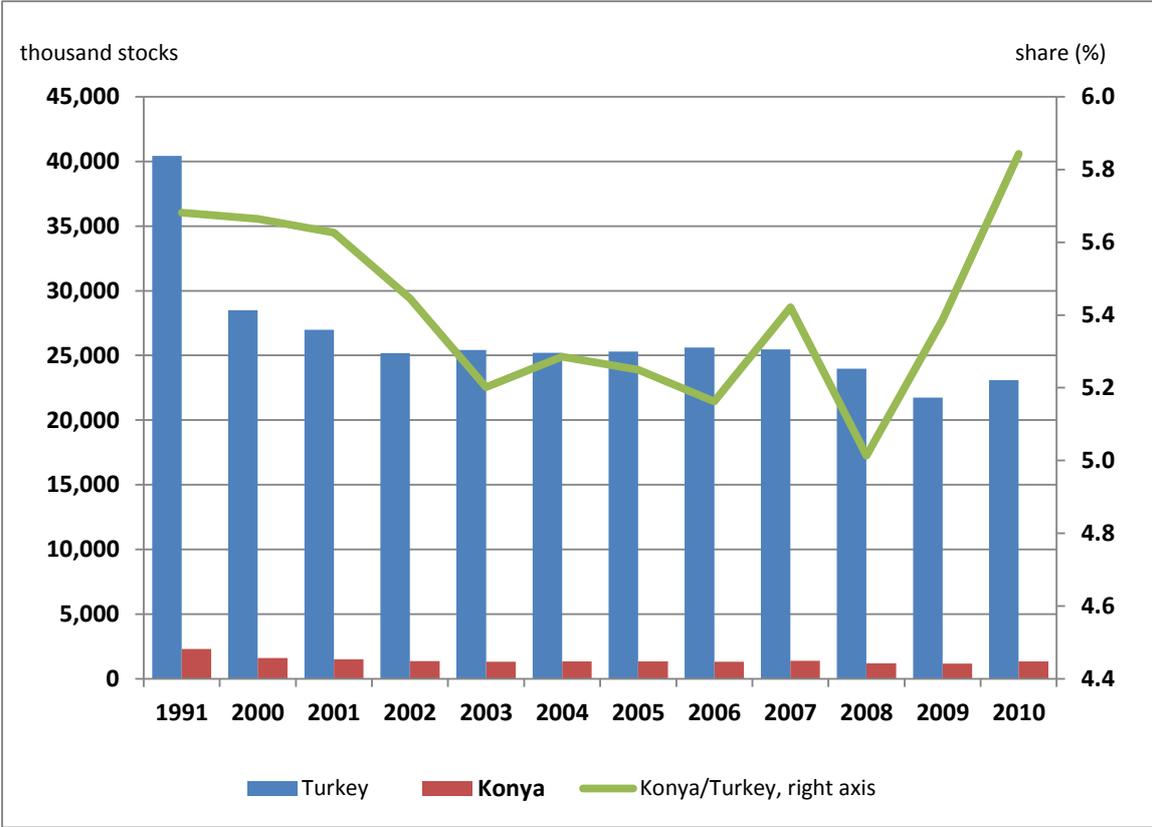
#### 4.7.2. Provincial Stock Inventory in the Region and Turkey

Analysis into stock inventory of Konya within the TR52 Region and Turkey reveals that, current inventory of all stock types in the province have a major standing both in the country

and the region, and that ovine breeding and egg poultry activity in the province have relatively higher shares in the region and Turkey (Table 54).

Accounting for 5% of the country total and 82.2% of the TR52 Region total in ovine inventory, the province has a share of 4% in Turkey and 92.3% in the TR52 Region when bovine inventory is concerned. Holding a share of 5.8% in overall sheep inventory of the country, Konya accounts for 7.7% of merino sheep and 5.8% of indigenous sheep inventory of the country as well.

**Chart 15: Sheep Inventory Trend**



Stock breeding is a traditional activity in Konya. Ovine breeding activity of the province is greatly facilitated to by vast grasslands in the province. Depending on dry farming conditions, almost half of the arable land is fallowed. Both abundant areas fallowed and inventory of huge grasslands pave the way for ovine breeding. Rather conducted in the form of stock breeding on pasture, sheep breeding has gradually been replaced by livestock fattening due to recent shrinkage of pastures and decline in quality due to wrong grazing practices. Feed mills and sugar refineries recently put into operation in the province have also made contributions to the flourishing of fattening activities.

Inauguration of feed mills and sugar refineries in the province has diversified feed materials, consequentially culminating in an enhanced cattle fattening activity that was previously inferior in the province. Another factor underlying the enhancement of cattle fattening activity is the booming trend of dairy farms evident since 1970's. Such increase in dairy farms has contributed to the improved quality of cattle inventory in the province and amplified the share of breeding and cross-breed stocks within the total stock inventory, culminating in gradual abandonment of indigenous cattle fattening. According to the TSI data for 2010, cattle inventory of the province accounts for 92% of the TR52 Region total and 4% of the country total. Stock inventory of Konya within the TR52 Region and Turkey is demonstrated by Table 54.

**Table 54: Provincial Stock Inventory within the Region and Turkey (2010)**

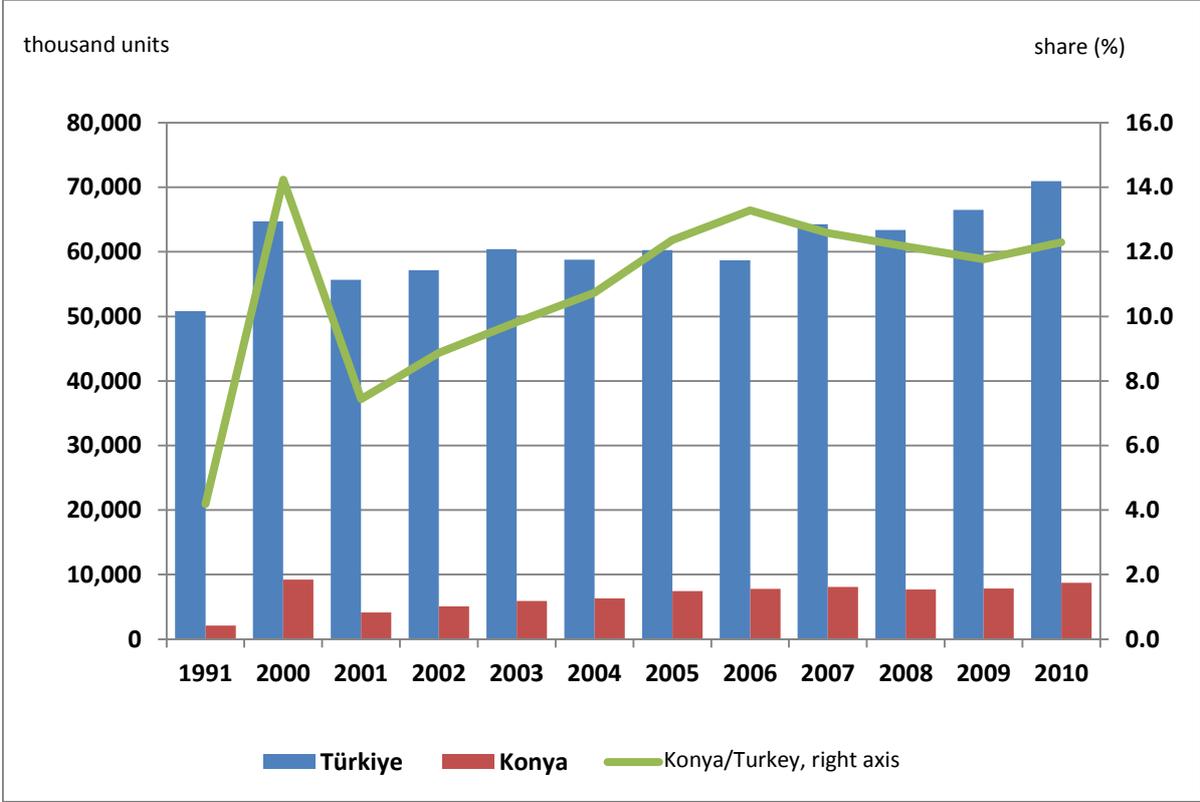
Stock type	Quantity (pcs)			Share (%)	
	Turkey (1)	TR52 Region (2)	Konya (3)	(3)/(1)	(3)/(2)
<b>Ovine</b>	<b>29,382,924</b>	<b>1,782,102</b>	<b>1,464,756</b>	<b>4.99</b>	<b>82.19</b>
<b>Sheep</b>	<b>23,089,691</b>	<b>1,623,949</b>	<b>1,349,248</b>	<b>5.84</b>	<b>83.08</b>
Sheep (merino)	1,086,392	156,963	83,536	7.69	53.22
Sheep (Indigenous)	22,003,299	1,466,986	1,265,712	5.75	86.28
<b>Hair goat</b>	<b>6,140,627</b>	<b>151,212</b>	<b>112,004</b>	<b>1.82</b>	<b>74.07</b>
<b>Angora goat</b>	<b>152,606</b>	<b>6,941</b>	<b>3,504</b>	<b>2.30</b>	<b>50.48</b>
<b>Bovine</b>	<b>11,454,526</b>	<b>499,278</b>	<b>460,924</b>	<b>4.02</b>	<b>92.32</b>
<b>Cattle</b>	<b>11,369,800</b>	<b>499,128</b>	<b>460,814</b>	<b>4.05</b>	<b>92.32</b>
Cattle (breeding)	4,197,890	289,705	269,866	6.43	93.15
Cattle (cross-breed)	4,707,188	170,505	153,175	3.25	89.84
Cattle (indigenous)	2,464,722	38,918	37,773	1.53	97.06
<b>Buffalo</b>	<b>84,726</b>	<b>150</b>	<b>110</b>	<b>0.13</b>	<b>73.33</b>
<b>Fowls</b>	<b>238,972,961</b>	<b>10,638,755</b>	<b>9,552,162</b>	<b>4.00</b>	<b>89.79</b>
<b>Hen</b>	<b>234,918,385</b>	<b>10,546,033</b>	<b>9,463,752</b>	<b>4.03</b>	<b>89.74</b>
Broiler Hen	163,984,725	740,448	740,448	0.45	100.00
Laying Hen	70,933,660	9,805,585	8,723,304	12.30	88.96
<b>Turkey</b>	<b>2,942,170</b>	<b>66,472</b>	<b>63,429</b>	<b>2.16</b>	<b>95.42</b>
<b>Duck</b>	<b>396,851</b>	<b>8,438</b>	<b>7,958</b>	<b>2.01</b>	<b>94.31</b>
<b>Goose</b>	<b>715,555</b>	<b>17,812</b>	<b>17,023</b>	<b>2.38</b>	<b>95.57</b>
<b>Beehives</b>	<b>5,602,669</b>	<b>1,706,019</b>	<b>948,800</b>	<b>16.93</b>	<b>55.61</b>

Source: TSI

Besides ovine and bovine breeding; fowl breeding, particularly poultry husbandry exhibits a sophisticated composition. According to the TSI data for 2010, there are 9.5 million hens in the province, accounting for 90% of the TR52 Region total and 4% of the country total. Konya constitutes a significant centre for the country particularly in terms of egg poultry. As at 2010, there are a total of 8.7 million laying hens in the province, constituting 12.3% of the

country total and 89% of the TR52 Region total (this was 4% of the country total in 1991, 14% in 2000 and 12% in 2005).

Chart 16: The Egg Poultry Trend



4.7.3. Production of Animal Products

Konya is one of the crucial centres of the country and the region when stock farming is concerned. The province represents 3.8 billion TL of stock farming related production value for 2010 as accounted for by the animal products value (40%) and livestock value (60%). For the production of animal products, Konya constitutes 3.9% of the country total and 88.3% of the TR52 Region total.

As at 2010, total number of stocks slaughtered in the province is 236,041. Of this, 91% are ovine (214,447 stocks) and 9% are bovine (21,594 stocks). While ovines slaughtered in the province accounts for 92.3% of the TR52 Region total and 4.7% of the country total, bovines slaughtered represent 93.6% of the regional total and 1.4% of the country total. Total number of stocks slaughtered in 2010 is 236,041, accounting for 3.87% of the country total and 92.46% of the TR52 region total.

Number of stocks milked during 2010 in Konya is 1.1 million. Of this, ovine accounts for 84% (863,548 stocks), and bovine accounts for 16% (170,626 stocks).

Table 55 shows the numbers of milked and slaughtered stocks in comparison to the TR52 Region and Turkey.

**Table 55: Number of Stocks Slaughtered and Milked (2009)**

	pcs			(%)	
	Turkey (1)	TR52 Region (2)	Konya (3)	(3) / (1)	(3) / (2)
<b>Number of Stocks Slaughtered</b>	<b>6,098,602</b>	<b>255,301</b>	<b>236,041</b>	<b>3.87</b>	<b>92.46</b>
Bovine	1,495,212	23,076	21,594	1.44	93.58
Ovine	4,603,390	232,225	214,447	4.66	92.34
<b>Number of Stocks Milked</b>	<b>17,563,350</b>	<b>1,221,557</b>	<b>1,034,174</b>	<b>5.89</b>	<b>84.66</b>
Bovine	4,397,203	186,201	170,626	3.88	91.64
Ovine	13,166,147	1,035,356	863,548	6.56	83.41

Source: TSI

Total of 646,419 tons of milk is produced in 2010, and bovine constitutes around 90% of this capacity. Amount of milk produced in the province accounts for 4.8% of the country total and 91.5% of the TR52 Region total.

Analysis into the yield level per stock in milk production reveals that milk produced from bovine outdistances the country average, yet milk produced from ovine is behind the country average. Breakdown of milk production in Konya and level of yield per stock is shown below.

**Table 56: Milk Production and Yield per Stock (2010)**

Stock Type	Turkey		TR52 Region		Konya	
	Production (tons)	Yield (Kg)	Production (tons)	Yield (Kg)	Production (tons)	Yield (Kg)
Cattle (indigenous)	1,247,644	1,315.5	17,932	1,320.4	17,423	1,322.0
Cattle (breeding)	6,309,065	3,879.1	437,646	3,961.7	408,691	3,993.0
Cattle (cross-breed)	4,861,835	2,720.7	171,325	2,759.1	152,789	2,776.0
Buffalo	35,487	1,003.5	72	1,285.7	72	1,285.7
Sheep (Merino)	24,710	48.1	3,664	43.4	1,743	40.0
Sheep (Indigenous)	792,122	78.7	68,617	78.0	60,678	79.0
Goat (Hair)	270,476	107.5	6,982	102.1	4,973	98.0
Goat (Angora)	2,335	35.2	112	42.5	50	43.3

Source: TSI

Analysis of meat production, another major component of stock breeding, reveals that 30,918 tons of meat were produced in Konya during 2009, and that around 90% of meat production originates from bovines. Amount of meat produced in the province accounts for 7.5% of total meat production of the country and 96.2% of that of the TR52 region.

Analysis of the yield level per stock in meat production reveals that while carcass weight of bovines outdistances the country average, carcass weight of ovines is on level with the country average. Table 57 shows meat production and carcass weight per stock in Konya.

**Table 57: Meat Production and Carcass Weight per Cattle (2009)**

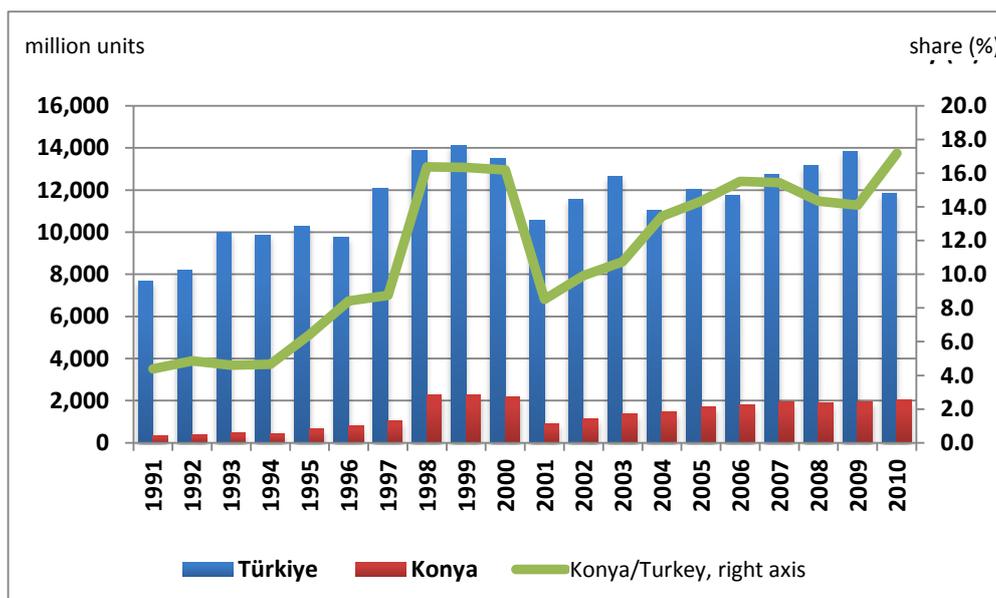
Stock Type	Turkey		TR52 Region		Konya	
	Production (tons)	Carcass Weight (kg)	Production (tons)	Carcass Weight (kg)	Production (tons)	Carcass Weight (kg)
Cow	57,678	196.6	4,752	215.9	4,536	218.5
Bull	8,306	257.9	224	341.8	224	341.8
Calf	34,445	195.0	979	138.4	959	138.8
Heifer	26,060	178.5	2,215	191.1	2,118	193.4
Bullock	197,337	233.0	19,682	276.1	19,194	278.7
Goat	2,049	13.8	15	13.7	11	13.8
Sheep	32,733	22.3	1,591	20.7	1,439	20.6
Lamb	41,901	16.5	2,384	16.8	2,356	16.8
Goat	9,626	14.6	286	23.6	81	23.9

Source: TSI

### Egg Production

Another major component of animal product production in Konya is egg production. Egg poultry in the province has demonstrated a substantial improvement over the last years, consequentially bringing in critical enhancements in egg production as well. While number of layer hens was 2.1 million in 1991, this raised by almost 3.1 folds during the 1991-2010 period and reached 8.7 million units in 2009. Such major improvement in egg poultry has also added to the overall level of production. While number of eggs produced in 1991 was 336 million, this was amplified by around 5 folds and reached 2 billion units in 2010. As at 2010, Konya holds a major share as high as 17.2% in country total, ranking the province first among other provinces.

Chart 17: The Egg Production Trend



#### 4.7.4. Aquaculture

The province accommodates myriad of lakes and dams with economically operational value. Prominent examples are the Akşehir Lake, Beyşehir Lake, Çavuşçu Lake, Apa Dam Lake and the Ivriz Dam Lake.

In lakes and dams of the province with fresh water stock, sea basses, carps, salmons, grey mullets and crayfish are produced. However, production from fishing are at negligible levels. While the fishing production being 3,998 billion TL in 2001 represent a substantial share within the TR52 region (92%), this merely accounts for 0.80% of the country total. Share of fishing production in the agricultural production of the province is as low as 0.5%. Table 58 shows the trend of fishing production of Konya.

Table 58: Share of Konya's fishing production in the Region and Turkey (\*)

Year	Fishing Production			Share (%)	
	Turkey (1)	TR52 Region (2)	Konya (3)	(3) / (1)	(3) / (2)
1990	2,149	11	10	0.47	90.91
1991	2,981	15	14	0.47	93.33
1992	4,429	29	26	0.59	89.66
1993	12,694	74	69	0.54	93.24
1994	25,556	158	151	0.59	65.57
1995	44,033	262	247	0.56	94.27
1996	72,610	606	570	0.79	94.06
1997	131,094	851	769	0.59	90.36
1998	236,870	1,732	1,560	0.66	90.07
1999	294,393	2,218	1,969	0.67	88.77
2000	386,553	2,989	2,683	0.69	89.76
2001	499,136	4,345	3,998	0.80	92.01

Note (\*): at current prices, billion TL

Source: TSI

Stock of fresh water products fished during 2010 in Konya amounts to 2,938 tons, and this is mainly constituted by sea basses, carps, tenches and salmons. Fresh water products fished in the province constitute 7.3% of the country total. Also salmon production is conducted in inland waters. Fresh water products produced during 2010 amount to 740 tons, and this constitutes a very minor portion (0.4%) of the country total.

**Table 59: Aquaculture Yields in 2010 (tons)**

	<b>Fresh water products fished</b>	<b>Fresh water products bred</b>
Konya	2,938	740
TR52	3,030	1,825
Turkey	40,259	167,141
<b>Konya/Turkey (%)</b>	<b>7.3</b>	<b>0.4</b>
<b>Konya/TR52 (%)</b>	<b>97.0</b>	<b>40.5</b>

Source: TSI

## 5. INDUSTRY<sup>4</sup>

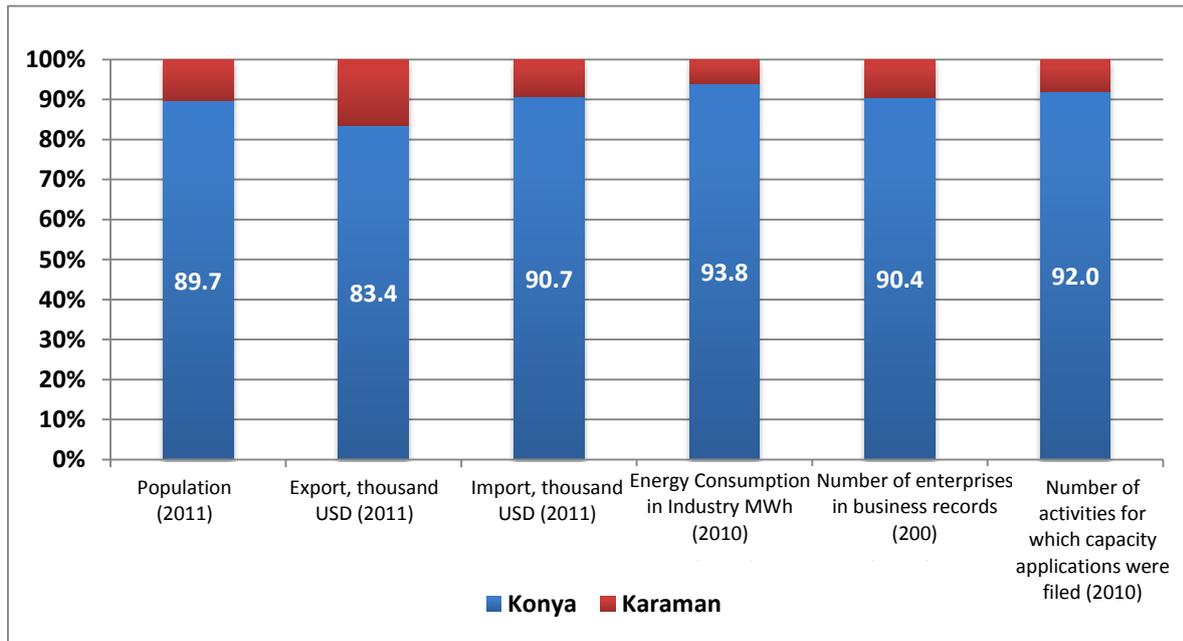
### 5.1. Industrial Production

Contribution to the provincial economy and trend of Konya industry will be discussed by means of two different data set for two different periods. The first one is the 1987-2001 period for which the Gross Domestic Product figures by business line on provincial level have been published. And the second one is the 2004-2008 period for which Gross Domestic Product figures by major sectors throughout the Level 2 regions have been published. According to the Level 2 regional classification, the TR52 region is made up of by Konya and Karaman. According to various indicators, Konya has shares ranging from 83% to 94% in the TR52 region (Chart 18). Though TR52 will be employed in value added and manufacturing industry analyses for Konya, we are of the opinion that assessments based on these data will greatly represent Konya as the province is highly representative of the TR52 region.

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<sup>4</sup> The design and elaboration of this part of the report has been facilitated to by Mr. Mustafa ŞİMŞEK, the Deputy Manager for Economic and Social Researches.

**Chart 18: Shares of Konya in the TR52 Region According to Various Indicators**



Source: TSI, TUCCE

Exploration of Gross Domestic Product (GDP) figures for Konya reveals that the industrial production of the province have an average share of 18.5% in the provincial GDP (at current prices) for the 1987-2001 period. While the industrial share in the GDP of the province was 17.3% in 1987, it is observed that it then exhibited a wavy progress in the course of time and reached 18.3% in 2001. Such progress pushed the industrial sector to the third rank after the transport-communication sector and the agriculture sector in provincial GDP classification.

Table 60 shows the progress of the provincial industrial sector over the years in comparison to the region and country.

**Table 60: Progress of Industrial Production by Year\***

	1987	1990	1999	2000	2001
Mining and Quarrying	33	120	27,451	65,763	26,579
Manufacturing Industry	311	1,652	282,114	428,187	689,821
Electricity, Gas and Water	19	99	16,572	25,766	57,902
<b>Industrial Production of Konya (1)</b>	<b>363</b>	<b>1,871</b>	<b>326,137</b>	<b>519,716</b>	<b>774,302</b>
<b>Industrial Production of Turkey (2)</b>	<b>18,697</b>	<b>98,369</b>	<b>16,954,221</b>	<b>28,068,846</b>	<b>43,136,288</b>
<b>Agricultural Production of the TR 52 Region (3)</b>	<b>363</b>	<b>2,004</b>	<b>358,320</b>	<b>566,324</b>	<b>849,564</b>
(1) / (2) (%)	1.9	1.9	1.9	1.9	1.8
(1) / (3) (%)	100.0	93.4	91.0	91.8	91.1
Share of overall national industrial production in GDP (%)	25.0	25.0	21.9	22.5	24.2
Share of overall industrial production of Konya in GDP (%)	17.3	19.3	16.8	16.8	18.3
<b>Production of Konya Manufacturing Industry/Konya Industry</b>	<b>85.7</b>	<b>88.3</b>	<b>86.5</b>	<b>82.4</b>	<b>89.1</b>

Note (\*): at current prices, billion TL

Source: TSI

As the table reveals, almost 90% of the industrial production of Konya is held by the manufacturing industry. As at 2010, while 89.1% of industrial production is accounted for by the manufacturing industry, 3.4% is constituted by mining and quarrying, and 7.5% by electricity, gas and water production.

Comparing the share of Konya industrial production in total GDP of the province to country average reveals that such share dropped by further 6 points in the course of time. While the industrial share of Konya was behind country average by 7.7 points in 1987, it is observed that the difference improves to 5.9 points in 2001.

It is observed that the share of the province's industrial production in country total does not change during the 1987-2001 period and is constant at 1.9% in average (despite Karaman was proclaimed as an independent province and withdrawn from the control of Konya in 1989, Konya managed to preserve its share in the overall industrial production of the country, highlighting poor industrial contribution of the Karaman economy. As a matter of fact, while the industrial production of Karaman within the provincial GDP was 14.4% in 1990, it retrogressed to 12.6% in 2001.).

The growth in the industrial production of Konya exhibits a wavy progress. Furthermore, treating the 1989-2001 period as a whole, it is observed that the industrial production of the province have scored an average annual growth of 1.3% (While industrial GDP of Konya was

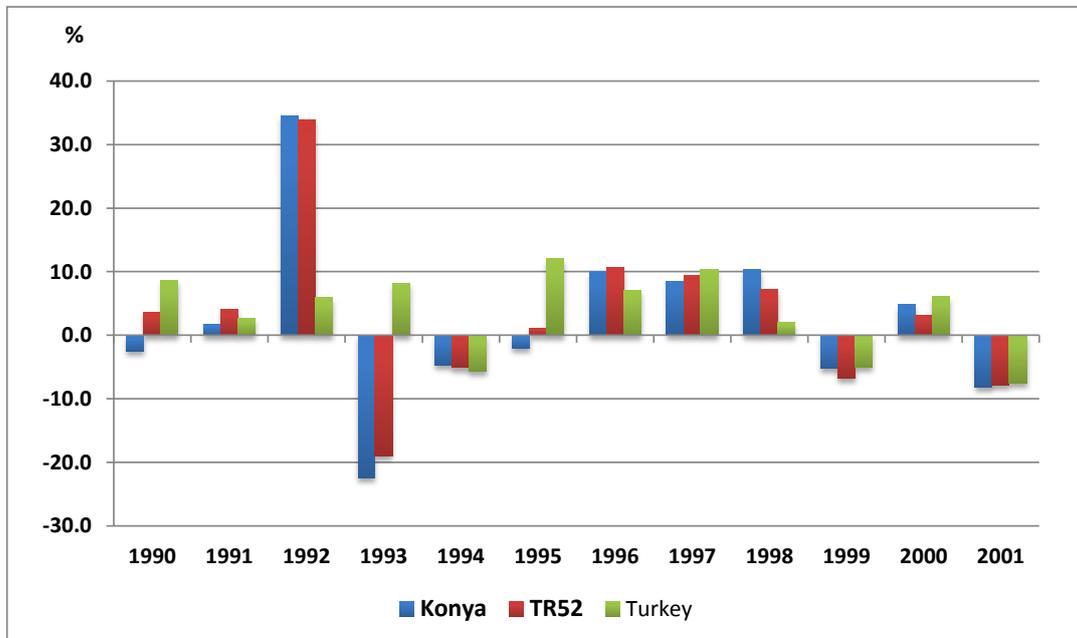
397 billion TL in 1989 at fixed prices of 1987, it rallied to 462 billion TL in 2001). During the same period, annual average growth rate of industrial production of the TR52 region and Turkey was 2.2% and 3.6% respectively.

**Table 61: Overall GDP and Industrial GDP Growth Rates (at fixed prices of the year 1987)**

Year	Konya		TR52		Turkey	
	Industry	GDP	Industry	GDP	Industry	GDP
1990	-2.4	-0.7	3.7	11.7	8.6	9.3
1991	1.7	4.8	4.1	7.1	2.7	0.9
1992	34.6	6.5	33.9	7.1	5.9	6.0
1993	-22.4	-3.5	-19.0	-1.7	8.2	8.0
1994	-4.6	-5.5	-5.1	-4.7	-5.7	-5.5
1995	-2.1	3.0	1.1	3.2	12.1	7.2
1996	10.0	8.1	10.6	8.4	7.1	7.0
1997	8.5	7.6	9.4	6.4	10.4	7.5
1998	10.4	8.6	7.2	6.9	2.0	3.1
1999	-5.2	-7.0	-6.8	-6.5	-5.0	-4.7
2000	4.8	9.5	3.2	8.0	6.0	7.4
2001	-8.2	-13.9	-7.9	-12.9	-7.5	-7.5
<b>Period 1990-2001</b>						
<b>Annual Average Growth Rate (%)</b>	<b>1.3</b>	<b>1.2</b>	<b>2.2</b>	<b>2.5</b>	<b>3.6</b>	<b>3.1</b>

Source: TSI

**Chart 19: Industrial Growth Rate for Konya, the TR52 region and Turkey (%) (at fixed prices of 1987)**



While annual growth rate of the industrial production of Konya during the 1990-2001 period was positive, the province suffered losses in 1990, 1993, 1994, 1995, 1999 and 2001. On the other hand, growth rate of the industrial production of Konya outdistanced the country average in 1992, 1996 and 1998. The biggest breakthrough in the industrial sector of the province occurred in 1992 at 34.6%, yet the deepest loss occurred in 1993 at 22.4%.

Survey of the Gross Value Added (GVA) statistics for the industry sector reveals that the share of the industrial value added of the TR52 region, which is composed of Konya and Karaman, in Turkey is around 2%. GVA statistics by province are not published, yet statistics published on regional scale may be assessed as a major source of data for Konya. GDP survey for the 1987-2001 period reveals that GDP figures for the industrial sector of Konya account for around 92% of the TR52 region. Based on this fact, considering that the manufacturing profile has not changed, the assumption is that more than 90% of the industrial GVA figures of the TR52 region is accounted for by Konya. Assessments as to GVA figures of the industry sector are as follows:

**Table 62: Progress of the Industrial Value Added (IVA) by Years\***

	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
IVA for TR52 (1)	2,970	3,435	3,790	4,096	4,519
IVA for Turkey (2)	138,412	160,331	188,647	209,515	232,475
<b>(1/2) (%)</b>	<b>2.15</b>	<b>2.14</b>	<b>2.01</b>	<b>1.95</b>	<b>1.94</b>
<b>Share of overall national IVA (%)</b>	<b>28.0</b>	<b>28.0</b>	<b>28.2</b>	<b>27.8</b>	<b>27.2</b>
<b>Share of Konya IVA (%)</b>	<b>25.0</b>	<b>25.2</b>	<b>24.4</b>	<b>23.1</b>	<b>22.3</b>
<b>Level 2 rank of the TR52 IVA</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>15</b>

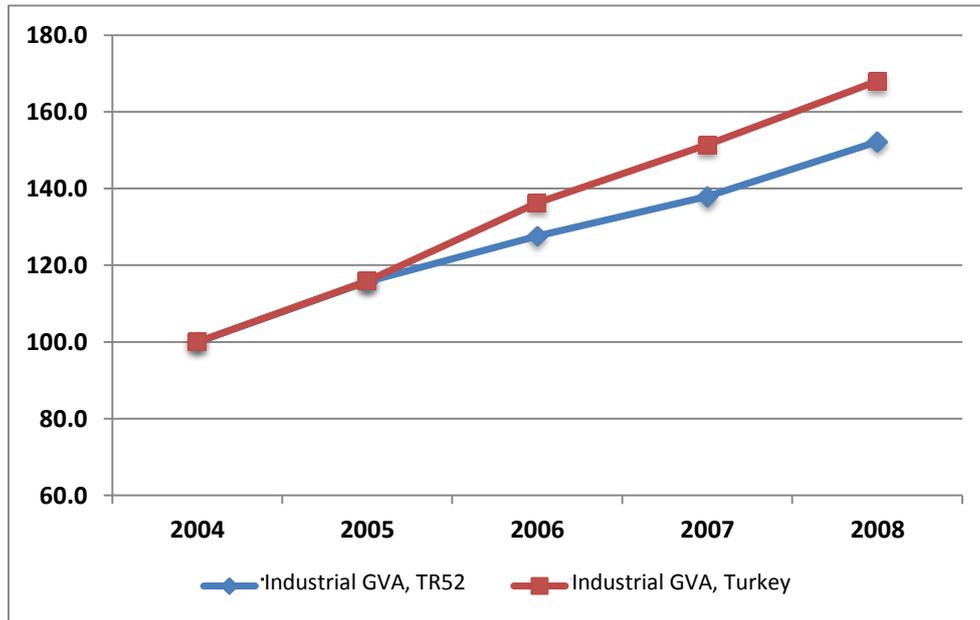
Note (\*): at current prices, billion TL

Source: TSI

As the table reveals, GVA of the industry sector in the TR52 region made a leap of 52.% during the 2004-2008 period and reached 4.5 billion TL in 2008. Therefore, the industry sector accounts for 22% of the gross value added created in the region. While gross value added of the overall industry sector of the country scored an increase of 68% during the same period, the share of the industry sector in total GVA is around 27%. The progress of the growth in the TR52 industrial value added over the years is outperformed by the growth in the overall industrial value added of Turkey. This has led to decline in the share of TR52 industrial gross value added in both total value added of TR52 and in the overall industrial value added of the country (from 25% in 2004 to 22.3% in 2008, and from 2.15% in 2004 to

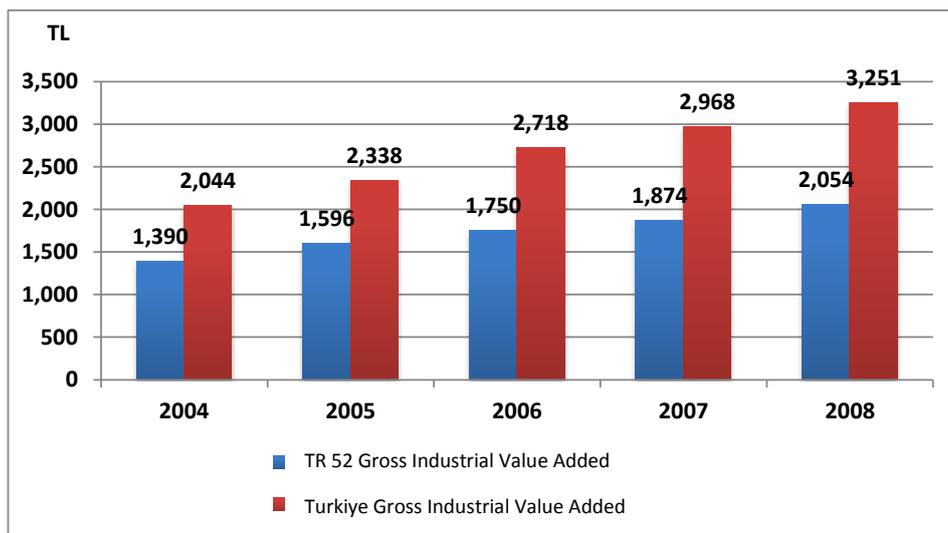
1.95% in 2008 respectively). The progress of industrial value added of Konya and Turkey is demonstrated in Chart 21 where assumption is that 2004=100.

**Chart 20: Progress of the Industrial GVA of Turkey and the TR52 Region (2004=100)**



It is observed that while the gross industrial value added per capita for the TR52 - Konya, Karaman region was TL 1,390 in 2004, it scored an increase of 47.9% during the 2004-2008 period and reached TL 2,054 in 2008. During the same period, the gross value added per capita for the TR52 region fell behind the country average by nearly 35%.

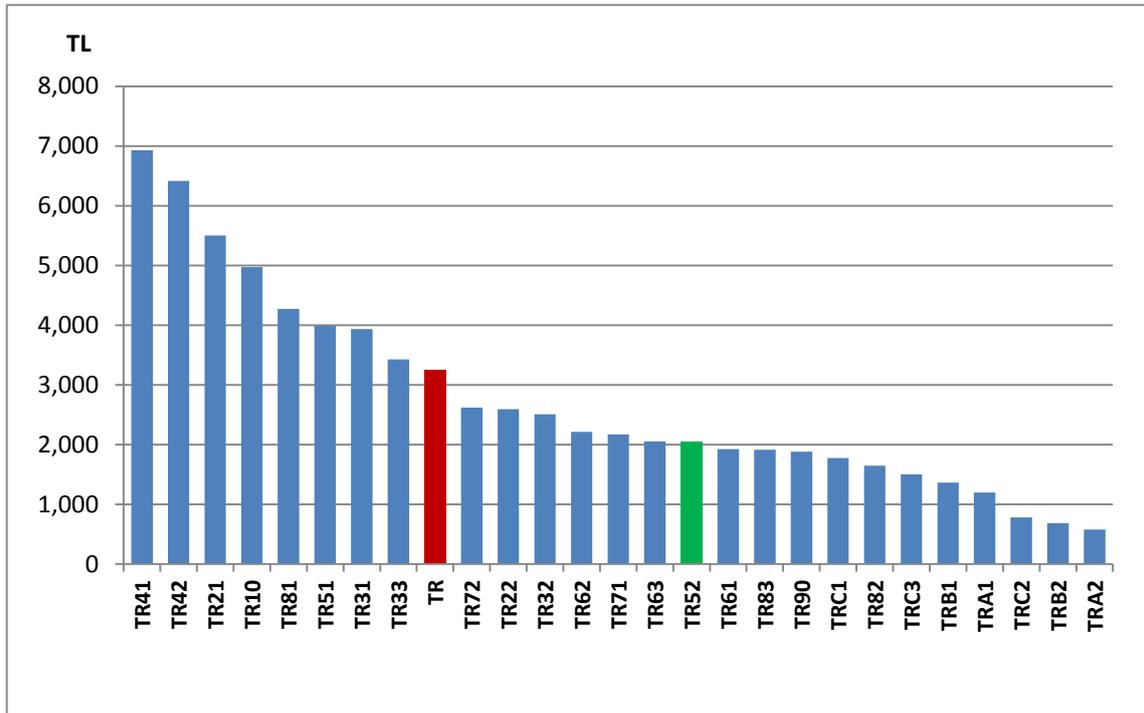
**Chart 21: Progress of Gross Value Added Per Capita for the TR52 Region and Turkey**



The progress of the gross value added per capita for Level 2 regions reveals that the gross value added per capita for the TR52-Konya, Karaman region during 2008 is ranked 15<sup>th</sup>

among 26 regions. This ranks the TR52 region above 4 statistical regions (*TR61-Antalya, Isparta, Burdur region; the TR83-Samsun, Tokat, Çorum, Amasya region; the TR90-Trabzon, Ordu, Giresun, Rize Artvin, Gümüşhane region; the TR82-Kastamonu, Çankırı, Sinop region*) together with 7 East and South East Anatolian regions.

**Chart 22: Gross Industrial Value Added per Capita for Level 2 Regions (2008)**



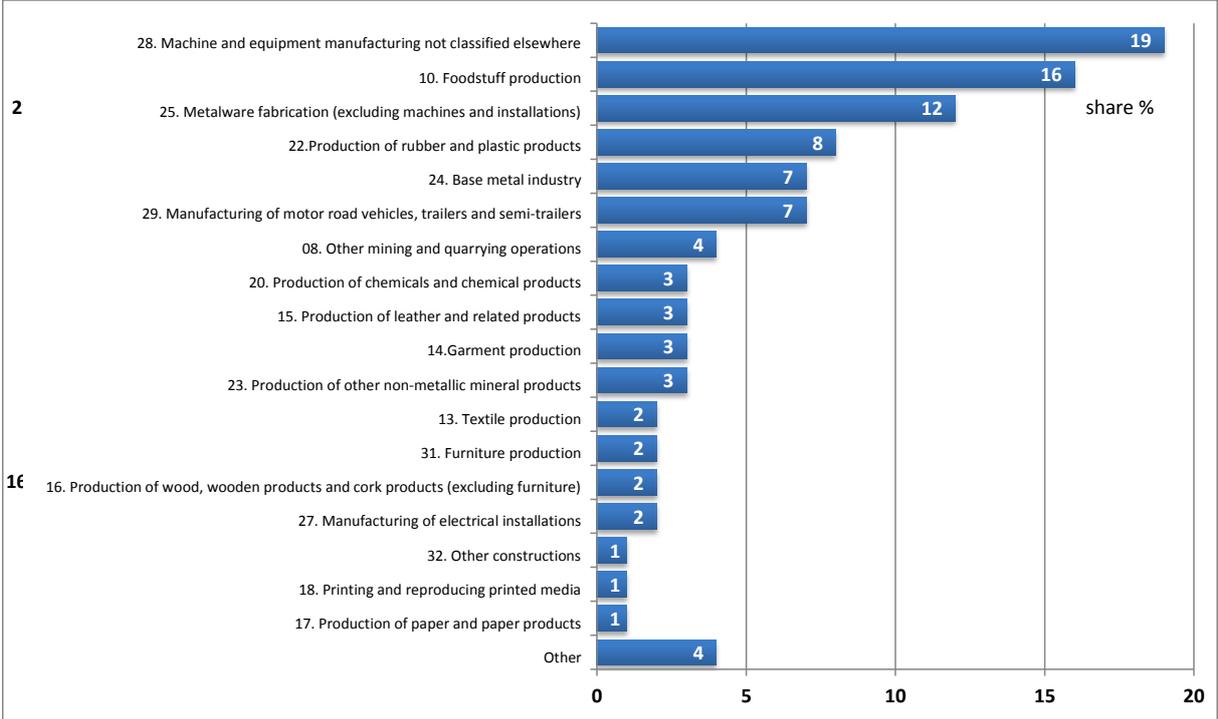
## 5.2. Overview of the Manufacturing Industry

A typical agriculture-oriented city, Konya has seen industrial improvements over the last years. As a reflection of these improvements, 7 companies from Konya have been ranked in top 500 companies list and 14 companies in the second top 500 companies list published by the Istanbul Chamber of Commerce where *500 Top Industrial Organizations of Turkey* for 2010 are classified.

There are 2,815 industrial establishments registered with the industrial registry in Konya. These establishments offer employment to 58,677 persons. Number of industrial establishments in Konya constitutes 4% of all registered enterprises throughout Turkey. This figure places Konya to the fifth rank after Istanbul, Bursa, Ankara and Izmir. The breakdown of industrial establishments in the province is such that, machinery and equipment construction not classified elsewhere takes the first rank with a share of 19% followed by

foodstuff production with a share of 16% and metalware fabrication with a share of 12%. It is interesting that industrial establishments active in the province exhibit a noteworthy sectoral diversification. However, such diversification in terms of the number of establishments does not give out adequate data as to concentration and sectoral risk, and assessments in this regard require other additional criteria, therefore analysis into sectoral risk concentration will be discussed later. Sectoral breakdown of industrial establishments registered with the industrial registry of Konya is provided in Graph 23 (NACE Rev.2.)

**Chart 23: Breakdown of industrial establishments registered with the industrial registry of Konya (2012)**



Source: Ministry of Science, Industry and Technology - General Directorate of Industry

**5.3. Industrial Infrastructure**

One of the significant indicators signalling the development of industrial infrastructure is how sufficient Organized Industrial Zones (OIZ) in the province are both in qualitative and quantitative terms. **Organized Industrial Zones** are defined as "special areas" exclusively designed for industrial operations and where means of infrastructure including transport, energy and other public services are offered with a view to facilitating to the growth of industries and minimizing their burden on the environment. Industrial zones may cover the treatment of factory effluents; collection, treatment and disposal of solid and toxic wastes; air

pollution and monitoring; technical services to prevent pollution; quality management (quality assurance and control), and laboratory services.

The current progress attained by Organized Industrial Zones (OIZ) and Small Industrial Complexes (SIC) that provide a healthy climate for investors during the development of industry in Konya and during investment and manufacturing phases is crucial. Efforts to build up the industrial infrastructure kicked off by the 1<sup>st</sup> Organized Industrial Zone of Konya that was put into operation in 1976 on an area of 134 ha with 150 business units inside led to a huge OIZ area of 1,691 ha formed through the merger of 2<sup>nd</sup> and 3<sup>rd</sup> OIZ. While the 1<sup>st</sup> OIZ of Konya seems to have an emphasis on agricultural equipment, automotive supply industry, machine and spare part construction, irrigation systems and painting & chemical applications, the Konya OIZ highlights automotive, casting applications, machinery, agricultural equipment and food industry. Efforts to create an appropriate industrial infrastructure in the province proceeded with the formation of OIZs in Akşehir, Beyşehir, Çumra, Ereğli, Kulu, Karapınar and Seydişehir. Hence, number of OIZs already completed and OIZs at investment phase has reached 9. Design, allocation, construction and production phases for OSBz are implemented on a concurrent basis. In 9 organized industrial zones of Konya, 61% of existing 1,444 plots (878 plots) have been allocated. Of them, 18% (155 plots) are at design phase, 17% (149 plots) are at construction phase and 65% (574 plots) are at production phase. In 574 industrial establishments still at production phase, a total of 23,260 people are employed. Data as to the aspects of OIZ in the province are provided in Table 63.

**Table 63: Organized Industrial Zones in Konya**

	Year of Foundation	Surface area (ha.)	Number of Plots	Allocated	Production	Design	Construction	Employment	Completion Foundation
1 <sup>st</sup> OIZ of Konya	1976	134	189	189	156	28	5	2,700	1980
Konya OIZ	2001	1,691	644	517	358	36	123	20,000	1994
Konya Ereğli OIZ	1996	258	118	61	40	10	11	400	2001
Konya-Beyşehir OIZ	2001	105	76	23	12	11	-	100	2006
Konya-Akşehir OIZ	1996	159	106	46	3	33	10	30	2008
Konya-Seydişehir OIZ	2002	150	53	10	-	10	-	-	2010
Konya-Çumra OIZ	2001	100	73	14	5	9	-	30	-
Konya-Kulu OIZ	2006	350	-	-	-	-	-	-	-
Konya-Karapınar OIZ	-	208	185	18	-	18	-	-	-
<b>Total</b>	-	<b>3,155</b>	<b>1,444</b>	<b>878</b>	<b>574</b>	<b>155</b>	<b>149</b>	<b>23,260</b>	-

Source: Ministry of Science, Industry and Technology - General Directorate of Industry

There are 3 private IOZs in Konya. Of them, the first is the Būsan OIZ employing around 10,000 persons in 592 business units. 70% of the companies in the Būsan Private OIZ manufacture automotive spare parts. Other private industrial zones located in Konya are the Konsan OIZ hosting 121 companies and the Ketenci OIZ hosting 51 companies.

### **Small Industrial Complexes (SIC);**

Complexes bringing together small-scale enterprises engaged in similar business lines with a view to providing contemporary and regular working climates to small-scale industrial manufacturers and repair companies located in a non-organized manner within the city and functioning under unfavourable operational conditions, improving their operating conditions and fostering solidarity and organization between them, meeting their demands and requirements more smoothly and cost effectively, and bringing new technologies in businesses to enhance main industry/subsidiary industry relationships are called ***Small Industrial Complexes***.

According to the data provided by the Ministry of Science, Industry and Technology, 17 small industrial complexes with a capacity to accommodate a total of 4,500 businesses were founded in the province and districts through the ministerial loan as at the end of 2011. 383 of the business in these SICs are unoccupied, and the occupancy rate of the complexes is around 91%. Adding the SICs built fully by building societies for small industrial complexes through no use of loan, number of SICs in the province and districts reaches 38. There are 6,800 businesses in total of 38 small industrial complexes in Konya, and a total of 15,330 people are employed in these businesses.

### **Konya Teknokent**

Konya Teknokent has been offering technology park services at international standards to technology companies conducting R&D operations, and particularly engaged in new and high-level technologies. The Selçuk University's Technology Development Zone (Konya Technology City) is ranked among top 5 of 38 Technology Development Zones for the number of businesses hosted. Of them, 26 of are currently active in our country.

Konya Technology City hosts a total of 107 businesses. Considering the aspects and future prospects of the Konya region, the Selçuk University's Technology Development Zone gives

priority to hosting businesses proposing to conduct R&D activities in the fields of IT Technologies, Agricultural Technologies, Biotechnology, Design Technologies, Environmental and Energy Technologies, and Defence Industry.

#### **5.4. The Analyses of Economics Structure and Performance of the TR52 Region<sup>5</sup>**

As suggested in prior analyses and assessments hereunder, Konya has a major representative power in the economical composition of the TR52 region (almost 90% of the TR52 region assets belong to Konya, and 10% to Karaman). Therefore, it may be argued that assessments regarding the TR52 region would substantially represent Konya.

In this part of the report, the production layout of the TR52 region will be assessed in comparison to the overall country facts both generally and also from the angle of sub sectors within the manufacturing industry, similarities and/or distinctions between the economic composition of the region and Turkey will be addressed, and also sectors standing out in the region accompanied with a particular weight in production will be identified through different approaches.

One of the methods to figure out the production layout of a region as well as certain components involved or having weight in such profile is to survey fixed capital investments made in sectors on periodical basis. Thus, it will be possible to monitor the route and concentration (also the tendency) of the production power in the region. Table 64 designed in line with this purpose shows the breakdown of fixed capital investments by general economic activity in comparison to Turkey for the 2003-2008 period.

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<sup>5</sup> The present part of the report has been elaborated by Mr. Oktay Küçükiremitçi, Manager for Economic and Social Researches.

**Table 64: Fixed Capital Investments by Economic Activity for TR and TR52 (% share)**

Main Activity	2003		2004		2006		2007		2008	
	TR	TR52	TR	TR52	TR	TR52	TR	TR52	TR	TR52
Mining and Quarrying	0.8	0.3	1.4	0.5	1.0	-	1.6	0.7	1.5	0.6
Manufacturing Industry	41.7	65.5	44.1	48.8	38.8	47.2	37.1	57.2	35.7	47.9
Electricity, Gas and Water	13.6	4.7	8.1	4.1	6.5	2.9	6.4	3.8	8.3	12.8
Construction and Public Works	3.3	1.3	3.8	1.6	5.4	5.8	6.4	5.6	7.2	3.7
Trade and Repair	10.8	14.7	18.6	38.3	15.3	23.2	16.6	13.4	16.0	18.6
Hotel, Restaurant, etc.	4.3	1.9	2.8	0.4	3.8		3.6	0.3	3.2	0.6
Transport, Warehousing and Communication	15.4	5.6	15.2	3.7	24.4	14.3	21.0	16.2	21.2	9.4
Real Estate	4.0	1.1	3.0	1.8	2.9	4.1	4.2	0.8	3.6	3.7
Education	3.0	0.5	1.1	0.3	0.6	0.6	0.8	0.9	1.0	0.6
Healthcare Affairs and Social Services	2.7	-	1.3	-	0.9	0.8	1.8	0.9	1.3	1.7
Other Social, Communal and Personal Services	0.4	-	0.6	0.3	0.4	0.2	0.5	-	0.8	0.3
Non-distributed/Other	0.0	4.3	0.0	0.3	0.0	1.0	0.0	0.2	0.0	0.0
<b>Total Sectors</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Our own calculations based on TSI business statistics

Remarks: 1) No data is available for 2005.

2) "Non-distributed/Other" row is the aggregate of sectors whose data cannot be published due to confidentiality purposes or with negligibly small figures.

What's interesting at first sight in Table 64 appears to be the industrialization effort of the TR52 region. In the whole period, the share of the manufacturing industry investments within the TR52 region in total investments exceeds the country average. Despite fluctuations in the course of time, manufacturing industry investments constitute almost half of total investments. From the angle of industry sector (including mining and energy sectors in the manufacturing industry), it is observed that around 60% of total investments are accounted for by industry sector investments. Hence, the share of industry sector investments in total investments exceeds the country average moving around 45%, demonstrating the industrialization potential of the region.

The second rank is held by investments in Trade and Repair sector, where Turkey and the TR52 region are at par (in particular the 2007 and 2008 period).

The share, in total investments nationwide, of the Transport, Warehousing and Communication sector that has been displaying a major improvement over the last years as a sub branch of the services sector is considerably growing, yet it is lower when compared to the country total in the TR52 region. This indicator, particularly displaying the progress of the logistics sector, signals a future conjuncture where the TR52 region is expected to demonstrate further potential for development.

Table 65 shows the share of investments, made in the sub sectors of the manufacturing industry, in total manufacturing industry investments for the 2003-2008 period both for Turkey and the TR52 region.

The most noteworthy indicator of the table is the considerably big share of foods and beverages sector in total manufacturing industry investments (57 percent as the period average). While the share of these sector investments in country total is 10 percent, investments in foods and beverages sector exceed even the sum of investments made in other sectors within the TR52 region. Another differentiation from the typical investment profile of Turkey is in the textile sector. While this sector receives the biggest investment throughout the country, it is ranked bottom in the TR52 region.

**Table 65: Investments in Major Sectors of the Manufacturing Industry for TR and TR52 (% share)**

NACE Rev 1.1. Sectors	2003		2004		2006		2007		2008		Average	
	TR	TR52	TR	TR52	TR	TR52	TR	TR52	TR	TR52	TR	TR52
15- Food & Beverages	9.5	70.4	11.7	63.1	8.3	53.0	10.3	60.1	10.8	38.8	10.1	57.1
17- Textile	18.7	2.6	17.6	3.1	29.0	0.5	10.2	0.7	6.7	1.5	16.4	1.7
18- Garment	5.4	0.6	5.9	0.5	2.5	1.1	2.6	-	2.4	1.0	3.8	0.6
19- Leather Products	0.5	0.5	0.7	0.2	0.6	0.5	0.4	0.2	0.6	0.2	0.6	0.3
20- Wood & Cork	1.8	0.2	2.1	3.0	1.1	0.3	1.4	2.9	2.3	-	1.7	1.3
21- Paper	1.3	0.8	2.5	4.5	2.2	2.3	2.8	0.7	1.8	1.1	2.1	1.9
22- Press & Media	5.2	0.2	1.9	1.0	1.5	0.4	1.4	0.6	1.4	0.4	2.3	0.5
24- Chemicals	6.1	1.4	5.6	1.2	5.8	2.2	6.8	1.6	6.3	2.0	6.1	1.7
25- Plastics & Rubber	18.1	6.5	5.9	5.6	4.5	10.8	4.7	5.0	8.0	6.7	8.2	6.9
26-Mineral Products	5.0	3.6	6.7	2.5	10.6	7.7	10.1	5.2	10.8	5.6	8.7	4.9
27-Base Metal	6.1	1.7	5.0	1.9	7.5	6.8	9.8	6.3	14.9	22.3	8.7	7.8
28-Hardware	2.5	1.1	3.6	2.9	3.9	3.2	3.9	3.9	5.4	5.3	3.9	3.3
29 - Machinery	3.6	2.5	6.4	4.9	7.2	5.6	5.0	4.1	5.4	7.0	5.5	4.8
31 - Electrical Machines	1.3	0.0	2.4	0.1	1.9	0.2	1.9	0.0	2.7	0.5	2.0	0.2
34- Road Vehicles	6.3	6.3	6.8	4.6	5.4	4.3	7.5	6.6	9.5	7.0	7.1	5.7
36- Furniture, etc.	1.6	-	2.7	0.3	1.8	0.5	2.0	0.3	1.5	0.4	1.9	0.3
Non-distributed/Other	7.1	1.6	12.5	0.6	6.1	0.7	19.1	1.7	9.4	0.2	10.8	1.0
<b>Total Manufacturing</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Our own calculations based on TSI business statistics

Remarks: 1) No data is available for 2005.

2) "Non-distributed/Other" row is the aggregate of sectors whose data cannot be published due to confidentiality purposes or with negligibly small figures.

It is observed that, investments made in the base metal industry over the last years have come to the foreground, and that rate of investments made in this sector has approached the country average, pushing the sector to the second rank in the classification of top investments in the region. Furthermore, it is another noteworthy fact that investments made in the machinery and equipment sector and the road vehicle manufacturing sector have approached the country average.

### 5.4.1. Industrial Concentration and Clustering in TR52 Region

The progress of investments in the TR52 region within a short time series (the 2003-2008 period) is shown in Table 64 and 65 in comparison to Turkey. Since the variable employed in these tables is a flow variable, it would be instrumental and complementary to analyse the breakdown of regional concentration by sub sectors by means of stock variables. In tables hereinafter, sectoral breakdown, concentration and clustering of investments in the TR52 region will be surveyed based on the criteria of "Number of Businesses", "Employment" and "Turnover".

Breakdown of economic activities throughout the TR52 Region and Turkey by number of businesses, employment and turnover as at 2009 is shown in Table 66.

**Table 66: Breakdown of Economic Activity by Major Sectors for TR and TR52 (2009, % share)**

NACE Rev. 2 Sectors	Number of Businesses		Employment		Turnover	
	TR	TR52	TR	TR52	TR	TR52
Mining and Quarrying	0.1	0.1	1.1	1.0	0.8	0.6
Manufacturing Industry	13.1	14.3	27.1	29.1	27.3	27.7
Electricity, Gas and Steam	0.0	0.0	0.6	0.3	4.6	2.6
Water, Sewer, Waste	0.1	0.3	0.7	1.3	0.5	0.6
Construction	4.5	2.8	7.2	4.4	6.0	2.7
Commercial and Passenger Veh. Repair	42.9	49.3	29.2	38.1	46.1	56.3
Transport and Warehousing	15.9	15.4	9.7	8.8	5.8	5.9
Accommodation and Food	8.2	5.9	6.5	3.8	1.6	0.7
Information and IT	1.1	1.2	1.5	0.9	2.1	0.4
Real Estate Activities	0.8	0.4	0.4	0.2	0.2	0.2
Occupational, Scientific, etc. Activities	5.0	3.6	3.7	2.5	2.0	0.5
Administrative and Support Services	1.0	0.5	5.9	3.7	1.4	0.6
Education	0.4	0.5	1.8	2.0	0.4	0.3
Health and Social Services	1.3	0.6	2.0	1.6	0.7	0.5
Culture, Art, Entertainment, Sports	0.6	0.3	0.4	0.1	0.2	0.0
Other Services	5.1	4.8	2.1	2.1	0.2	0.2
Non-distributed	0.0	0.1	0.0	0.0	0.0	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Table 66 reveals that, concentration in economic activity within the TR52 Region and Turkey according to all three criteria is similar.

Based on the criterion "number of businesses", activity holding the biggest share both in the region and country is the Repair of Commercial and Passenger Vehicles. It is observed that businesses engaged in this field of activity constitute almost the half of total businesses both in the region and the country. Ranked second is transport, a sub sector of services with a share of 15 percent followed by the manufacturing industry for the region and the country with shares of 14 and 13 percent respectively.

Based on the criterion "employment", Repair of Commercial and Passenger Vehicles is again ranked first (38 percent for the country and 46 percent for the region) followed by the Manufacturing Industry with a share of 29% for the region and 27% for the country.

According to the criterion "turnover", it is observed that more than half of the income produced in the TR52 region (56 percent) is yielded by the Repair of Commercial and Passenger Vehicles (46 percent for the country), followed by the Manufacturing Industry with a share of 28 percent. Demonstrating a parallel trend with the overall country according to all three criteria, Transport and Warehousing activities have a share of around 6 percent in turnover produced in the TR52 region.

In particular, the performance of the manufacturing industry in Table 66 reveals a parallel trend with the overall country according to all three criteria. However, whether such parallel progress differs or not by sub sectors should also be identified. Hence, it would be possible to understand whether the general profile of manufacturing in the TR52 region and the country resembles each other or not (by the criteria of number of businesses, employment and turnover).

Shares held by sub sectors of the manufacturing industry in overall manufacturing industry within the TR52 region are presented in Table 67 in comparison to the country. Table 67 is aimed at studying concentration from different respects by three different criteria (number of businesses, employment and turnover).

**Table 67: Manufacturing Industry Concentrations for TR and TR52 (2009, % share)**

NACE Rev. 2 Sectors	Number of Businesses		Employment		Turnover	
	TR	TR52	TR	TR52	TR	TR52
10-Food	13.0	11.3	13.0	30.3	15.1	53.9
11-Beverages	0.2	0.1	0.5	0.3	1.1	0.4
13- Textile	5.8	4.7	11.0	1.6	7.7	1.0
14- Garment	16.0	7.6	14.7	5.3	6.6	1.8
15-Leather and Leather Products	2.3	5.4	1.7	2.2	0.8	0.7
16- Wood, Wooden products	8.1	6.9	2.6	2.6	1.4	0.6
17-Paper and Paper Products	0.7	0.3	1.6	1.3	2.0	2.2
18- Press and Media	4.0	1.9	2.1	0.9	1.1	0.3
20- Chemicals	1.2	1.1	2.2	1.7	5.4	2.0
21- Pharmaceuticals	0.1	0.1	1.1	0.5	2.0	0.4
22-Rubber&Plastic	5.8	11.1	5.6	7.9	5.0	6.1
23-Mineral Products	4.1	4.2	6.1	3.9	5.7	4.6
24-Base Metal	0.8	1.8	3.7	5.2	10.1	5.8
25-Hardware	14.9	18.6	8.8	9.1	5.1	4.3
27- Electrical Equipment	2.3	0.8	4.0	0.7	6.0	0.6
28-Machinery and Equipment	4.0	5.8	5.1	10.1	3.6	7.7
29-Motor Road Vehicles, etc.	1.4	7.1	4.8	11.1	8.4	6.0
30- Other transport vehicles	0.3	0.0	1.4	0.0	1.4	0.0
31- Furniture	10.5	8.4	5.2	4.0	2.0	1.2
32- Other	2.4	1.2	1.8	1.0	2.1	0.4
33- Machine Installation & Repair	1.7	1.5	1.3	0.3	0.5	0.0
Non-distributed	0.3	0.0	1.8	0.1	6.9	0.1
<b>Manufacturing Industry Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Note: During the issuance of the table, sectors existing in the TR52 region/sectors with published data or with data of adequate size to serve as representative have been considered. Data of other sectors have been presented as aggregated under the row "non-distributed".

Concentration of sectors by data presented in Table 67 reveals that Food sector is represented with the most striking data. Though this sector is ranked second with a share of 11% within the TR52 region by the criterion "number of businesses", it displays a much superior concentration and representative power compared to other sectors in terms of employment and turnover. While 30 percent of total employment in manufacturing industry within the TR52 region is accounted for by this sector, the turnover of the sector constitutes 54% of the overall turnover of the manufacturing industry. Based on this data, though the sector does not display a significant dominance in terms of the number of businesses, such a higher rate of concentration of the sector in terms of employment and turnover is an indicator of the fact that businesses engaged in this sector are high scale enterprises with high sales performance (compared to enterprises engaged in the same sector within Turkey and other sectors within the region).

On the other hand, the Metalware sector ranked first in terms of the number of businesses exhibits an exactly opposite profile comparing to the food sector. The sector holding a share of 19 percent in all enterprises engaged in the manufacturing industry of the region can only represent 9% of employment and 4% of turnover. Based on this similarity prevailing for the whole country, it is suggested that the metalware sector is primarily dominated by small-scale enterprises (probably concentrating in small industrial complexes) with fewer employees and producing less turnover.

Another sector displaying concentration in manufacturing industry within the TR52 region is the Rubber and Plastic Products sector. The sector accounts for 11% of overall number of enterprises, 8% of employment and 6% of turnover. It is understood that, in the sector exhibiting a higher concentration compared to the country average based on all three criteria (like in the Metalware sector), myriad of small-scale enterprises are engaged.

It is observed, based on the percent of shares in the parameters concerned, that the Machinery and Machinery Equipment sector standing out within the TR52 region both for employment and the turnover produced, displays a higher concentration compared to the country average and also is made up of medium and big-scale businesses.

The Motor Road Vehicles sector appears to be another industry standing out within the region for its employment and turnover performance. It is observed that the sector has a

higher concentration than the country average on the basis of all three criteria within the TR52 region.

Instead of analysing Table 67 separately for each industry, it is possible to discuss the concentration characteristics of sectors compared to the country average by means of an indexing method to be developed based on the criteria specified. In Table 68 developed for this purpose, the share of manufacturing industry sectors in the whole manufacturing industry of the country has been assumed as 100 units in the first three columns, and their shares in the TR52 region have been calculated as an index value accordingly. In the last three columns of the table, three ratios calculated for the manufacturing industry sub sectors of the country have been assumed as 100 units, and index values of manufacturing industry sub sectors within the TR52 region have been found accordingly. An overview of ratios calculated here is provided below.

**Employment/Business Ratio:** Sector employment/number of businesses in the sector ratio has been assumed as 100 units for all sub sectors of the country, and the sector employment/number of businesses for sub sectors of the TR52 region has been calculated accordingly as an index value. This rate indicates employment per business for each sub sector, assuming the overall country rate as 100, and consequentially the relative scale of the business in that sub sector compared to the country average on the basis of employment. Ratios bigger than 100 units would point to a business scale outdistancing the country average for that sector in terms of unit employment.

**Turnover/Business Ratio:** Sector turnover/number of businesses in the sector ratio has been assumed as 100 units for all sub sectors of the country, and the sector turnover/number of businesses for sub sectors of the TR52 region has been calculated accordingly as an index value. This rate indicates turnover per business for each sub sector, assuming the overall country rate as 100, and consequentially the relative scale of the business in that sub sector compared to the country average on the basis of turnover. Ratios bigger than 100 units would point to a sales potential outdistancing the country average for that sector in terms of turnover produced in unit business.

**Turnover/Employment Ratio:** Sector turnover/employment in the sector ratio has been assumed as 100 units for all sub sectors of the country, and the sector turnover/employment

for sub sectors of the TR52 region has been calculated accordingly as an index value. This rate indicates turnover per employee for each sub sector, assuming the overall country rate as 100, and consequentially the productivity rate of the business in that sub sector compared to the country average. Ratios bigger than 100 units would point to a productivity level outdistancing the country average for that sector in terms of turnover produced per employee.

**Table 68: Comparison of TR52 Region and overall Turkish Manufacturing Industry (2009, Index)**

NACE Rev. 2 Sectors	TR52 Index (share in Turkey=100)			TR52 Index (overall national rate=100)		
	Number of Businesses	Employment	Turnover	Employment/ Business	Turnover/ Business	Turnover/ Employment
10-Food	87.0	232.3	357.2	221.4	271.0	122.4
11-Beverages	31.2	65.9	37.7	175.2	79.7	45.5
13- Textile	80.0	15.0	13.0	15.5	10.7	68.8
14- Garment	47.6	36.1	26.4	62.8	36.7	58.3
15-Leather and Leather Products	232.2	132.2	81.7	47.2	23.2	49.2
16- Wood, Wooden products	85.0	97.4	39.9	94.9	31.0	32.6
17-Paper and Paper Products	46.0	84.1	109.3	151.7	156.9	103.5
18- Press and Media	47.1	44.9	26.8	79.2	37.6	47.5
20- Chemicals	94.0	75.0	36.7	66.2	25.8	38.9
21- Pharmaceuticals	87.2	42.7	19.6	40.6	14.9	36.7
22-Rubber&Plastic	191.3	140.8	121.2	61.0	41.8	68.5
23-Mineral Products	102.1	63.6	81.2	51.7	52.5	101.6
24-Base Metal	234.8	141.3	58.0	49.9	16.3	32.7
25-Hardware	125.5	103.0	82.9	68.1	43.6	64.0
27- Electrical Equipment	33.3	18.4	9.4	45.8	18.6	40.7
28-Machinery and Equipment	146.9	196.9	213.2	111.2	95.8	86.2
29-Motor Road Vehicles, etc.	503.8	229.2	71.2	37.7	9.3	24.7
30- Other transport vehicles	13.3	2.7	1.4	17.0	7.0	41.3
31- Furniture	79.4	76.7	61.7	80.1	51.3	64.0
32- Other	50.7	54.1	17.8	88.5	23.2	26.2
33- Machine Installation & Repair	87.0	22.3	6.8	21.2	5.2	24.4
Non-distributed	13.7	4.6	1.7	27.5	8.0	29.0
<b>Manufacturing Industry</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>82.9</b>	<b>66.0</b>	<b>79.6</b>

Source: Our own calculations based on TSI business statistics

Note: Values in the bordered cells indicate relative scale/superiority of the TR52 region.

Discussing the general results in Table 68 for the manufacturing industry on the basis of the TR52 region reveals that the manufacturing industry profile of the TR52 region falls behind the country average in terms of business scale (both in terms of employment and turnover) and productivity. Assuming the country average as 100 units, index values for the TR52 region are 83 for employment per business, 66 for turnover per business and 80 for turnover (productivity) per employee.

Table 69 has been developed to summarize the findings of Table 68 by sector. In Table 69, the TR52 region has been compared to the country average on the basis of sub sectors, and sectors standing out for both relative significance (values in the first three columns of Table 68) and relative size and superiority have been shown.

**Table 69: TR52 Zone, Prominent Sectors in the Manufacturing Industry**

NACE Rev. 2 Sectors	Relatively Essential Criterion			Relative Size/Strength Rate		
	Number of Businesses	Employment	Turnover	Employment/ Business	Turnover/ Business	Turnover/ Employment
10-Food		X	X	X	X	X
11-Beverages				X		
15-Leather and Leather Products	X	X				
17-Paper and Paper Products			X	X	X	X
22-Rubber&Plastic	X	X	X			
23-Mineral Products	X					X
24-Base Metal	X	X				
25-Hardware	X	X				
28-Machinery and Equipment	X	X	X	X		
29-Motor Road Vehicles, etc.	X	X				

Source: Table 68 data

It would be possible to analyse sectors standing out on the basis of different criteria and ratios within the TR52 region by means of the Table 69 data. At this point, it should be kept in mind that the analysis conducted is not the absolute superiority analysis but the relative superiority analysis, and that proportional assessment of all sectors exceeding the country average for all criteria is being carried out. Furthermore, Table 69 may both be interpreted by criteria (horizontally), and also be discussed in terms of relative superiorities of sectors on the basis of strength criteria (vertically). Accordingly;

**Food sector** stands out in the region in terms of employment and turnover. The sector also outdistances the country average for its scale size and productivity.

**Paper and Paper Products sector** displays a scale exceeding the country average in terms of turnover in the region, and like in the Food sector, it stands out in terms of employment and turnover per unit business as well as turnover and productivity per employee.

**Mineral products sector** has a relative advantage in the region in terms of productivity and number of businesses.

**Machinery and Machinery equipment sector** has a significant standing in the region for its representative share in number of businesses, employment and turnover in the region, and appears to be outdistancing the country average in terms of employment and business size.

**Rubber and Plastic Products sector** stands out in the region in terms of the number of businesses, employment and turnover, and it is understood that businesses in this sector are generally small-scale enterprises, and that the sector displays low productivity within the region.

**Leather and Leather Products, Base Metal, Metalware and Motor Road Vehicles sectors** are understood to have relative significance in the region in terms of the number of businesses and employment, and yet none of these sectors have not reached scale size and productivity exceeding the country average.

**Beverages sector** outdistances the country average in terms of the number of employees per business, yet appears to have no relative significance in terms of none of the remaining criteria.

To demonstrate the parallel (or distinct) nature of sectors standing out in the TR52 region and sectors standing out in the overall country on the basis of different criteria, Table 70 has been developed. In Table 70, sectors are ranked by size on the basis of their share in the overall manufacturing industry in terms of the number of businesses, employment and turnover, clearly highlighting a comparison of region and country by sector. Furthermore, sectoral concentration ratios (CR) by the criteria specified have been calculated, making it possible to make a comparison to the country average.

Breakdown of the number of businesses reveals a similarity between the country and the TR52 region in terms of the sectors ranked high and also the concentration ratios. Metalware, Garment, Food and Furniture sectors represent the common top-five sectors. Furthermore, while  $CR_5$  (concentration coefficient at rank five) is 63 percent for Turkey, it is 57 percent for TR52. In this respect, the TR52 region displays a more homogeneous profile than the country average in terms of the number of businesses.

From the angle of employment, manufacturing industries of Turkey and the TR52 region display major distinctions. Of sectors with top-five ranking, only the Food and Metalware sectors display a parallel composition, and particularly the Food sector exhibits a dominant profile in terms of employment in the TR52 region. While Road Vehicles sector is ranked 9<sup>th</sup> in Turkey, it is ranked second in the TR52 region. The food sector scoring the highest employment in Turkey is ranked 6<sup>th</sup> in the TR52 region. In terms of  $CR_5$ , the top-five sectors within the TR52 region account for 69 percent of total employment, displaying a very critical concentration by these sectors. It is 54 percent for the country average.

In terms of turnover, Food (ranked first in Turkey and the TR52 region), Road Vehicles and Base Metal sectors are common sectors with standing in the top-five classification. While Machine Manufacturing and Rubber and Plastic products sectors are ranked in the top-five classification within the TR52 region, they are replaced by the Textile and Garment sectors in the country-wide classification. As discussed in previous sections, Table 70 also reflects the conspicuous role of Food sector within the TR52 region in terms of turnover. The sector accounts for 54 percent of the whole regional turnover. Furthermore, in terms of the  $CR_5$  level, it is observed that top-five sectors in Turkey account for 48 percent of the overall turnover, and that it is 80 percent for TR52. It should be noted that, this value may be construed positive for sectoral specialization, yet it also serves as a major sectoral risk indicator. In this respect, TR52 region displays a profile dependent on only few sectors, of which Food sector critically stands out, in terms of the production produced.

**Table 70: Sectoral Concentrations for Turkey and the TR52 Region (2009)**

Item	By number of businesses						By employment						By turnover					
	Country total		TR52 Region		Country total		TR52 Region		Country total		TR52 Region		Country total		TR52 Region			
		% share	CR		% share	CR		% share	CR		% share	CR		% share	CR			
1	14-Garment	16.0	16.0	25-Metalware	18.6	18.6	14-Garment	14.7	14.7	10-Food	30.3	30.3	10-Food	15.1	15.1	10-Food	53.9	53.9
2	25-Metalware	14.9	30.9	10-Food	11.3	29.9	10-Food	13.0	27.7	29-Road vehicles	11.1	41.4	24-Base Metal	10.1	25.2	28-Machine	7.7	61.7
3	10-Food	13.0	43.9	22-Rubber	11.1	41.0	13-Textile	11.0	38.7	28-Machine	10.1	51.5	29-Road vehicles	8.4	33.5	22-Rubber	6.1	67.7
4	31-Furniture	10.5	54.4	31-Furniture	8.4	49.4	25-Metalware	8.8	47.5	25-Metalware	9.1	60.6	13-Textile	7.7	41.2	29-Road vehicles	6.0	73.7
5	16- WoodPr.	8.1	62.5	14-Garment	7.6	57.0	23-Stone and soil	6.1	53.6	22-Rubber	7.9	68.5	14-Garment	6.6	47.9	24-Base Metal	5.8	79.5
6	13-Textile	5.8	68.4	29-Road vehicles	7.1	64.1	22-Rubber	5.6	59.2	14-Garment	5.3	73.8	27-Electri. Equip..	6.0	53.8	23-Stone and soil	4.6	84.1
7	22-Rubber	5.8	74.2	16- WoodPr.	6.9	71.0	31-Furniture	5.2	64.3	24-Base Metal	5.2	78.9	23-Stone and soil	5.7	59.5	25-Metalware	4.3	88.4
8	23-Stone and soil	4.1	78.3	28-Machine	5.8	76.9	28-Machine	5.1	69.5	31-Furniture	4.0	82.9	20-Chemical	5.4	64.9	17- Paper	2.2	90.6
9	28-Machine	4.0	82.3	15-Leather	5.4	82.3	29-Road vehicles	4.8	74.3	23-Stone and soil	3.9	86.8	25-Metalware	5.1	70.0	20-Chemical	2.0	92.6
10	18-Press	4.0	86.2	13-Textile	4.7	87.0	27-Electri. Equip..	4.0	78.3	16- WoodPr.	2.6	89.3	22-Rubber	5.0	75.0	14-Garment	1.8	94.3
11	32-Other	2.4	88.7	23-Stone and soil	4.2	91.2	24-Base Metal	3.7	82.0	15-Leather	2.2	91.6	28-Machine	3.6	78.7	31-Furniture	1.2	95.5
12	15-Leather	2.3	91.0	18-Press	1.9	93.0	16- WoodPr.	2.6	84.6	20-Chemical	1.7	93.2	32-Other	2.1	80.8	13-Textile	1.0	96.5
13	27-Electri. Equip..	2.3	93.3	24-Base Metal	1.8	94.8	20-Chemical	2.2	86.8	13-Textile	1.6	94.9	21-Pharmaceuticals	2.0	82.8	15-Leather	0.7	97.2
14	33-Assembly	1.7	95.0	33-Assembly	1.5	96.3	18-Press	2.1	88.9	17- Paper	1.3	96.2	17- Paper	2.0	84.8	27-Electri. Equip..	0.6	97.8
15	29-Road vehicles	1.4	96.4	32-Other	1.2	97.5	32-Other	1.8	90.7	32-Other	1.0	97.1	31-Furniture	2.0	86.8	16- WoodPr.	0.6	98.4
16	20-Chemical	1.2	97.6	20-Chemical	1.1	98.7	15-Leather	1.7	92.4	18-Press	0.9	98.1	16- WoodPr.	1.4	88.2	11-Beverages	0.4	98.8
17	24-Base Metal	0.8	98.4	27-Electri. Equip..	0.8	99.4	17- Paper	1.6	93.9	27-Electri. Equip..	0.7	98.8	30-Other Transp. Veh.	1.4	89.6	21-Pharmaceuticals	0.4	99.2
18	17- Paper	0.7	99.1	17- Paper	0.3	99.8	30-Other Transp. Veh.	1.4	95.3	21-Pharmaceuticals	0.5	99.3	18-Press	1.1	90.7	32-Other	0.4	99.5
19	30-Other Transp. Veh.	0.3	99.4	21-Pharmaceuticals	0.1	99.9	33-Assembly	1.3	96.6	11-Beverages	0.3	99.6	11-Beverages	1.1	91.8	18-Press	0.3	99.8
20	11-Beverages	0.2	99.6	11-Beverages	0.1	99.9	21-Pharmaceuticals	1.1	97.7	33-Assembly	0.3	99.9	15-Leather	0.8	92.6	33-Assembly	0.0	99.9
21	21-Pharmaceuticals	0.1	99.7	30-Other Transp. Veh.	0.0	100.0	11-Beverages	0.5	98.2	30-Other Transp. Veh.	0.0	99.9	33-Assembly	0.5	93.1	30-Other Transp. Veh.	0.0	99.9
	Non-distributed	0.3	100.0	Non-distributed	0.0	100.0	Non-distributed	1.8	100.0	Non-distributed	0.1	100.0	Non-distributed	6.9	100.0	Non-distributed	0.1	100.0

The cluster analysis for the manufacturing industry sectors of the TR52 region will be conducted by means of the "Three Star Method". The three-star analysis is a method developed by the European Cluster Observatory<sup>6</sup> platform financed by the European Commission.

In this method, sectoral employments in almost all applications (number of businesses in some limited number of studies) are taken as basis. In the analysis to be conducted for the TR52 region, number of businesses and turnover data will also be utilized besides employment, and the three-star method will be applied separately based on each of these data. Three fundamental criteria are selected for the three-star analysis, and the values of these criteria are calculated for each sector (region). These criteria are briefly as follows:

**Size ( $e_i/E_i$ )** : Ratio of sector data in the region to the total (country) sector data,

**Dominance ( $e_i/e_n$ )** : Ratio of sector data in the region to the total region data,

**Specialization [ $(e_i/e_n) / (E_i/E_n)$ ]<sup>7</sup>** : Ratio of sector share in the region to the sector share in the country.

where;

$e_i$  : value of sector i in TR52 region

$E_i$  : Overall country value of sector i,

$e_n$  : total value of TR52 region

$E_n$  : Overall country value.

In the three-star analysis, a threshold is established for each criterion (size, dominance and specialization), and the sector gains one star for the sector concerned if the calculated value of the criterion exceeds this threshold. Since sectors analysed by region gain one star for each criterion where the threshold is exceeded, the sector exceeding the threshold of any criterion gains one star, sector exceeding the threshold of any two criteria gains two stars,

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<sup>6</sup> [www.clusterobservatory.eu](http://www.clusterobservatory.eu)

<sup>7</sup> The coefficient here is also employed as the Location Quotient (LQ) coefficient in distinct fields (geographical specialization, export specialization, etc.).

and the sector exceeding the threshold of all three criteria gains three stars. The sector gaining three stars is considered to be exhibiting "clustering" in that region.

Key problem in the three-star analysis is with the threshold. In threshold application, while commonly the threshold is assumed as 7 percent for the initial two criteria (size and dominance), it is most commonly assumed as 1 percent for the specialization coefficient. In particular here, since the value to be designated for the first two criteria has no theoretical or thematic value, it is observed that different studies employ different thresholds. For the assessment of the TR52 region, the following method has been adopted for the sake of establishing a more objective and rational value in the spatial breakdown of the manufacturing industry and in establishing the threshold:

- Since the analysis will be carried out for the manufacturing industry, the manufacturing industry total has been considered as a representation of total number of businesses, employment and turnover figures. Since the TSI data<sup>8</sup> for level (NUTS 2) regions (26 regions) and NACE Rev.2 have been described two digits breakdown level, two digits sector codes have been employed.
- In the TR52 region, the manufacturing industry has 23 sub sectors with published data. Since there is no business engaged in the tobacco sub sector, the latter has been excluded from the analysis.
- Due to data confidentiality, no calculation could be effected for sectors whose data have not been provided in the sector breakdown for the TR52 region, yet contributing to the total. However, values of these sectors have been included in the total. In this respect, it should be noted that since all data calculated are exclusively for the sectors published, data confidentiality underlies the omission in the results of some sectors not displaying a clustering yet actually known to be representing a clustering<sup>9</sup>.
- As a result, in establishing the threshold;

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<sup>8</sup> Calculations have been effected based on TSI, Labour Statistics, Annual Industrial and Service Statistics, 2009 data.

<sup>9</sup> Pursuant to the Law no 5429, TSI keeps the data confidential where there is a limited number of private enterprises in the sector, or where it is not possible to obtain the data of these enterprises through cross checks.

- For the criterion "size", as there is a total of 26 Level 2 regions to take account for the relevant sector's share in the overall country total ( $e_i/E_i$ ), and since the expected share of this sector in the country average for each region will be  $(1/26=0.03846154)$ , this value has been assumed as the threshold for the size criterion.
- As the manufacturing industry for the criterion "dominance" ( $e_i/e_n$ ) has 23 sub sectors and as the expected share of each sub sector in the regional manufacturing industry will be  $(1/23=0.04347826)$ , this value has been assumed as threshold.
- Also as the expected value for the specialization coefficient  $[(e_i/e_n) / (E_i/E_n)]$  will be 1 (meaning that the sector's share in the region is expected to be equal to the sector's share in the country), threshold has been assumed as 1.

Therefore, in determining the stars to be gained by sectors within the scope of the three-star analysis;

**If Size ( $e_{ij}/E_i$ ) > 0.03846154 then one (more) star is gained by the sector<sup>10</sup>,**

**If Dominance ( $e_{ij}/e_{nj}$ ) > 0.04347826 then one (more) star is gained by the sector**

**If Specialization  $[(e_{ij}/e_{nj}) / (E_i/E_n)] > 1$  then one (more) star is gained by the sector**

It should be highlighted once more that, in the three-star analysis employed in our study that is expected to yield the spatial breakdown of the manufacturing industry with the involvement of concentration, only the sectors exceeding the thresholds have been included. In naming the clustering characteristics based on stars gained by the sectors, sectors gaining three stars will be called "*mature clusters*", sectors gaining two stars will be called "*potential clusters*", and sectors gaining one star will be called "*candidate clusters*".

The results of the clustering analysis conducted for the TR52 region on the basis of the number of businesses, employment and turnover are presented in Table 71. For convenience of presentation, values calculated for the sectors are expressed as percentages in the table.

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<sup>10</sup> Here, the phrase "more" is used to denote that the star gain of the sector is irrespective of a particular criterion. For instance, a sector may gain two stars on the size and specialization criteria, size and dominance criteria or dominance and specialization criteria.

Table 71: Cluster Analysis of Sub-Sectors within the Manufacturing Industry for the TR52 Region (2009, percent)

NUMBER OF STARS		1-STAR									2-STAR									3-STAR											
		CRITERIA			Number of Businesses			Employment			Turnover			Number of Businesses			Employment			Turnover			Number of Businesses			Employment			Turnover		
SECTORS / COEFFICIENTS		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
10	Food		11.3																							6.0	30.3	2.3	7.4	53.9	3.6
13	Textile		4.7																												
14	Garments		7.6			5.3																									
15	Leather, leather products						1.3										7.3	5.4	2.3												
16	Wood and Wooden Products		6.9							1.1																					
22	Rubber and Plastic											7.9	1.4		6.1	1.2	6.0	11.1	1.9												
23	Mineral Products			1.0					4.6																						
24	Base Metal							5.8			7.4		2.3	5.2	1.4																
25	Metal Products													9.1	1.0		3.9	18.6	1.3												
28	Machinery and Equipment																4.6	5.8	1.5	5.1	10.1	2.0	4.4	7.7	2.1						
29	Motor Land Vehicles							6.0									15.8	7.1	5.0	6.0	11.1	2.3									
31	Furniture		8.4																												

Source: Our own calculations based on TSI, Labour Statistics, Annual Industrial and Service Statistics, 2009 data.

Note: First coefficient denotes size ( $e_i/E_i$ ), second coefficient denotes dominance ( $e_i/e_n$ ), and third coefficient denotes specialization [ $(e_i/e_n) / (E_i/E_n)$ ].

For a brief discussion based on data presented in Table 71, sectors somehow displaying clustering in Konya (candidate, potential or mature) have been presented in Table 72 by coefficients (size, dominance, specialization) where they display clustering.

**Table 72: Sectoral Clustering for the TR52 Region**

	<b>Binding coefficients</b>	<b>Binding criteria</b>	<b>Sectors</b>
<b>Mature cluster</b>	Size, dominance, competence	Number of Businesses	Leather and leather products, rubber and plastic, metal products, machinery equipment, motor road vehicles
		Employment	Food, machinery equipment, motor road vehicles
		Turnover	Food, machinery equipment
<b>Potential cluster</b>	Size and dominance	Number of Businesses	
		Employment	
		Turnover	
	Size and competence	Number of Businesses	Base Metal
		Employment	
		Turnover	
	Dominance and competence	Number of Businesses	
		Employment	Rubber and plastic, base metal, metal products
		Turnover	Rubber and Plastic
<b>Candidate clusters</b>	Size	Number of Businesses	
		Employment	
		Turnover	
	Dominance	Number of Businesses	Food, Textile, Garments, Wood and Wooden Products, Furniture
		Employment	Garments
		Turnover	Mineral Products, Base Metal, Motor Road Vehicles
	Competence	Number of Businesses	Mineral Products
		Employment	Leather, leather products
		Turnover	Wood and Wooden Products

Source: Table 8 data

It would be helpful to provide the following description for the convenience of interpreting Table 72 and explain table systematics: A sector gaining three stars on any criterion in Table 72 (number of businesses, employment or turnover) and therefore proving to be a mature cluster on that criterion should not be involved in the potential cluster or candidate cluster category on the same criterion (for instance, since the Food sector has gained three stars on the employment and turnover criteria, it has not been involved in the rows hosting employment and turnover criteria for potential or candidate clusters). The same description also applies to sectors involved in potential or candidate clusters. Furthermore, a sector may gain two stars or one star on any criterion where it has not gained three stars, and accordingly prove to be a potential or candidate cluster (for instance, since the Food sector has not gained three stars on the "number of businesses" criterion, it has been designated as a candidate cluster based on the dominance coefficient for that criterion).

As a general rule, a given sector may *simultaneously be involved only in the row* hosting a single criterion. On the other hand, it may separately be classified as a mature cluster, potential cluster or candidate cluster on the basis of different coefficients on distinct criteria.

Table 72 reveals that 6 sectors within the TR52 region have gained three stars on different criteria and proved to be mature clusters (Leather and Leather Products, Rubber and Plastics, Metalware, Machinery Equipment, Motor Road Vehicles sectors in terms of number of businesses; Food, Machinery Equipment, Motor Road Vehicles sectors in terms of employment; and Food, Machinery Equipment sectors in terms of turnover).

While there is no sector that could gain two stars on the size and dominance criteria within the TR52 region and accordingly proving to be a potential cluster, the Base Metal sector is classified as a potential cluster on number of businesses according to the size and specialization coefficients; Rubber and Plastics, Base Metal and Metalware sectors on employment according to the dominance and specialization coefficients; and Rubber and Plastics sectors on turnover again according to the same coefficients.

An analysis of sectors proving to be candidate clusters (gaining single star) interestingly yields that no sector has gained single star on any criterion according to the size coefficient. Sectors classified as candidate clusters according to the dominance or specialization coefficients are Food, Textile, Garment, Wood and Wood Products, Furniture, Mineral

Products, Base Metal, Motor Road Vehicles, Mineral Products, and Leather and Leather Products sectors.

#### **5.4.2. Defining Investment Fields by Sector**

Fields of investment by sector will be discussed on the basis of sectors standing out or having the potential to stand out in the region, sectoral performance, manufacturing structure of sectors and inter-sector interaction.

In defining sectors within the TR52 region standing out and posing the potential of development, the results of the clustering analysis conducted in previous sections will be utilized.

Consideration of both the studies in the literature and the characteristics of the criteria points to the opinion that major criteria in clustering are employment and turnover. It is obvious that, given the significance and representative power of sectors hosting myriad of businesses and sectors producing high levels of production or demonstrating high level of employment, the emphasis will particularly be on the last two criteria.

Besides this assessment, it should be noted that, competitiveness of a sector in the region, country and even the world is not merely associated with that sector's concentration in a particular region. As a general rule, existence of favourable means for the development of a sector that has a competitive character throughout the country would make a positive contribution. Furthermore, it is clear that, means of ease access to the products and production factors of sectors providing input to a particular sector engaged in the manufacturing industry (here, input covers, in a broad sense, all production inputs) would boost the competitive power of these sectors.

On the other hand, in sectors where final products are in nature of intermediate goods (such as base metal and rubber/plastic products sectors), existence or development potential of sectors that would demand the products of that sector as input is another crucial point.

For assessing the performance of sectors within the manufacturing industry, the findings of a study carried out by our Bank will be employed<sup>11</sup>. In this study, sub sectors involved in the manufacturing industry have been ranked by performance in descending order throughout the 2005-2010 period based on the calculation of annual variations of each sector based on the Production Index, Capacity Utilization Rates, Competitiveness Power in Foreign Trade (RCA), Employment Index, Productivity Index per Employee and Price Increases criteria. Based on these rankings, an insight into the general condition of sectors in the TR52 region may be developed.

For inter-sector interaction, findings of the structural analysis of sub sectors in the manufacturing industry to be obtained by means of the Input-Output Analysis will be utilized. At this point, particularly the analysis of linkage impacts of sectors (direct backward and direct forward linkage, direct total backward linkage and total forward linkage) is of essence.

#### **5.4.2.1. Assessment of Sectors Standing Out and Showing the Potential of Growth in the Region**

The fact that the Food sector and the Machinery Equipment sector prove to be a mature cluster in terms of both employment and turnover points to the opinion that these two sectors play a key role in the region, and are accompanied by Motor Road Vehicles sector that is classified as mature cluster in terms of employment.

We are of the opinion that sectors showing development potential in the region are represented by sectors classified as "potential cluster". Sectors involved in this category are Rubber and Plastics, Base Metal and Metal Products sectors.

Furthermore, the opinion is that sectors being candidate to show further development in the TR52 region are the sectors gaining single star on employment or turnover criteria upon the clustering analysis. These sectors are the Mineral Products, Base Metal, Motor Road Vehicles, Leather and Leather Products, Garment and Wood and Wood Products sectors.

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<sup>11</sup> The Analysis of the Turkish Manufacturing Industry (the 2005-2010 period, on the basis of 22 primary sectors), Ed. Mustafa ŞİMŞEK, Turkish Development Bank, Directorate of Economic and Social Researches, 2012, Ankara

### 5.4.2.2. Manufacturing Composition of Sectors and Inter-Sector Interaction

Manufacturing composition of sectors and their level of interaction will be assessed by means of the Input/Output Analysis. The Input/Output (I/O) Analysis is a method revealing the manufacturing composition of sectors, their interactions with other sectors, and allowing to calculate the accelerator and multiplier effects in the economy by sector.

The I/O Table for Turkey published in 2002 includes 59 sectors. As the purpose here is to examine the composition of the industry (and particularly the manufacturing industry) sector, 59 sectors have been aggregated into 33 sectors. Table 73 shows sectors undergoing clustering and NACE Rev. 1.1. codes applying to the clustering of such sectors.<sup>12</sup>

**Table 73: Sectors after clustering**

<b>NACE Code (§)</b>	<b>Products</b>
01-05	Agriculture, Hunting, Silviculture, Fishing
10-14	Mining
15-16	Food, Beverage and Tobacco
17	Textile
18	Garment, Fur Treatment and Dyeing
19	Leather Tanning, Treatment, Leather-Made Products
20	Wood and cork products
21	Paper and paper products
22	Press and media
23-24	Coke, Refined Petroleum, Chemical Substances and Products
25	Plastic and rubber products
26	Other non-metallic mineral products
27	Base metal industry
28	Metalware
29	Machinery and Equipment
30	Office, Accounting and IT Equipment
31	Electrical Machines and Devices not classified elsewhere
32	Radio, TV and Communication Devices
33	Medical Appliances, Precision and Optical Instruments
34	Motor Road Vehicles and Trailers
35	Other Transport Vehicles
36-37	Furniture; Other Manufacturing and Recovery not classified elsewhere
40-41	Electricity, Gas, Water
45	Construction

<sup>12</sup> The NACE Rev.2 classification and the NACE Rev. 1.1. classification are consistent in general terms despite minor distinctions by sub sector. Therefore, the content of sectors represented by dual-level breakdowns may be considered equal.

50-52	Whole and Retail Trade, Maintenance and Repair
55	Hotels and Restaurants
60-64	Transport, Warehousing and Communication
65-67	Financial Intermediation
70-74	Real Estate, Leasing, R&D
75	Public Management and Defence, Statutory Social Security
80	Training Services
85	Healthcare Affairs and Social Services
90-95	Other Social and Individual Services

(§) : Denotes the combined form of for instance "Agriculture, Stock Farming, Fishing and Silviculture" sectors standing among the "01-05", "01" and "05" NACE codes.

At this point, let's briefly describe the linkage coefficients to be calculated based on the I/O table;

**Direct Backward Linkage:** DBL is calculated based on the total of intermediary inputs acquired by a sector from other sectors during its manufacturing process. The direct backward coefficient calculated based on the "Technology Matrix (Input Coefficients Matrix)" is represented by the total of intermediary inputs employed to total production ratios where the total production value of the sector is assumed as "1". A high direct backward linkage coefficient denotes that, the sector highly demands the outputs of other sectors for manufacturing (the sector is highly dependent to backward sectors feeding it). In other words, a high backward linkage coefficient points to a strong linkage between the production of that sector and the production of other backward sectors.

**Direct Forward Linkage:** DFL indicates the ratio of the portion of a sector's production used as input by other sectors (total intermediary production) to the total demand (=consumption) in that sector's products (intermediary consumption+final consumption). In this sense, it displays how much of the sector's total production is employed as input by other sectors (or how much of the sector's production results with final consumption).

**Total Backward Linkage:** TBL is calculated based on the "Leontief Inverse Matrix". Total production rise driven by one unit of increase in final demand in a given sector signifies the total backward linkage effect of that sector. While direct backward linkage exclusively expresses the shares of other sectors' inputs in a particular sector's production, total backward linkage reflects both the increase in final demand to a particular sector (one unit of increase in demand by final consumers only to that sector's product), and also the total

rise in production occurring in all sectors concerned (linked) as a result of increase in input procured from other sectors due to the production rise introduced to meet such increase in demand. In this respect, total backward linkage coefficient expresses total production rise in the economy triggered by the change in demand to that sector's product.

**Total Forward Linkage:** TFL is calculated based on the "Leontief Inverse Matrix". The resultant rise in a particular sector's production led by one unit of increase in final demand in all sectors is defined as the total forward linkage effect of that sector. In total forward linkage, each unit of increase occurring in final products of all sectors involved in the economy reflects the extent of increase in the production of productive sectors.

Linkage coefficients and characteristic values of 33 sectors based on the I/O table in line with the above descriptions are presented in Table 74.

**Table 74: Linkage Coefficients of Sectors**

NACE Code	Sector	DBL	TBL	DFL	TFL
01-05	Agriculture, Hunting, Silviculture, Fishing	0,331	1,651	0,551	2,756
10-14	Mining	0,383	1,833	0,868	3,907
15-16	Food, Beverage and Tobacco	0,739	2,441	0,251	1,870
17	Textile	0,728	2,772	0,595	2,851
18	Garment, Fur Treatment and Dyeing	0,722	2,833	0,090	1,174
19	Leather Treatment, Leather-Made Products	0,731	2,819	0,447	1,475
20	Wood and cork products	0,741	2,654	0,731	1,442
21	Paper and paper products	0,720	2,690	0,924	2,455
22	Press and media	0,613	2,420	0,797	1,272
23-24	Refined Petroleum, Chemical Substances and Products	0,732	2,545	0,737	5,709
25	Plastic and rubber products	0,727	2,716	0,767	2,178
26	Other non-metallic mineral products	0,628	2,334	0,836	2,043
27	Base metal industry	0,757	2,923	0,852	5,894
28	Metalware	0,694	2,774	0,698	1,853
29	Machinery and Equipment	0,622	2,545	0,272	1,943
30	Office, accounting and IT equipment	0,561	2,310	0,304	1,128
31	Electrical machines and devices	0,706	2,753	0,491	1,735
32	Radio, TV and Communication Devices	0,786	3,097	0,374	2,286
33	Medical devices, optical precision instruments	0,709	2,737	0,218	1,260
34	Motor road vehicles and trailers	0,757	2,961	0,342	1,631
35	Other transport vehicles	0,537	2,279	0,474	1,145
36-37	Furniture, other manufacturing and recovery	0,751	2,914	0,139	1,146
40-41	Electricity, Gas and Water	0,630	2,413	0,783	3,870
45	Construction	0,543	2,291	0,081	1,179

50-52	Whole and Retail Trade, Repair and Maintenance	0,383	1,766	0,484	5,794
55	Hotels and Restaurants	0,535	2,108	0,134	1,216
60-64	Transport, Warehousing and Communication	0,437	1,886	0,480	5,401
65-67	Financial Intermediation	0,362	1,643	0,640	2,858
70-74	Real Estate, Leasing, R&D	0,267	1,587	0,390	3,679
75	Public Management and Defence, Social Security	0,397	1,820	0,003	1,008
80	Training Services	0,213	1,437	0,048	1,064
85	Healthcare Affairs and Social Services	0,479	1,985	0,056	1,066
90-95	Other Services	0,433	1,836	0,317	1,486

**DBL: Direct Backward Linkage, TBL: Total Backward Linkage, DFL: Direct Forward Linkage, TFL: Total Forward Linkage**  
**Note: In the table, highest values for each criteria are boxed.**

Accordingly, the sector with the highest direct backward linkage is the Radio, TV and Communication Devices sector (code no 32). In this sector, the share of intermediate inputs in total production inputs sums 0.786. While the sector produces 100 units, it utilizes 78.6 input units from other sectors. And the sector also boasts the highest total backward linkage. On each unit change in demand to sector's products, total production displays an increase of 3.097 units.

The Paper and Paper Products sector (code no 21) has the highest direct forward linkage coefficient. 92.4 percent of sector's production is assigned to the use of other sectors as intermediate products.

The Base Metal sector (code no 27) has the highest total direct forward linkage coefficient (5.894). Considering that total forward linkage coefficient would demonstrate the extent of increase in total production of the sector on each unit increase in demand to all products within the portfolio, it may be argued that the Base Metal sector is a major supplier sector and receives the highest impact for each increase in the demand of other sectors.

#### **5.4.2.3. Inter-sectoral Interaction and "Partial Linkage Coefficients"**

When linkage coefficients presented in Table 75 are expressed as partial coefficients, they may be expected to provide more exhaustive data. Hence, sectors with which each of the sectors has most linkages or the sectors mostly triggered can be identified. In this respect, only concerning the sub sectors of the Manufacturing Industry, direct backward, total backward and total forward partial linkage coefficients have been calculated for "top 10 sectors" and will be presented in the following tables.

**Table 75: Partial Direct Backward Linkage Coefficients for the Manufacturing Industry**

<b>Sector</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>Total</b>
<b>1516</b>	Coefficient	0.3603	0.1418	0.0750	0.0470	0.0226	0.0201	0.0184	0.0075	0.0067	0.0048	<b>0.7393</b>
	NACE Code	0105	1516	5052	6064	2324	25	21	4041	26	28	
<b>17</b>	Coefficient	0.3451	0.1251	0.0811	0.0415	0.0387	0.0176	0.0121	0.0057	0.0051	0.0049	<b>0.7285</b>
	NACE Code	17	2324	5052	6064	0105	4041	25	21	29	26	
<b>18</b>	Coefficient	0.4083	0.0774	0.0565	0.0416	0.0300	0.0274	0.0079	0.0070	0.0066	0.0062	<b>0.6219</b>
	NACE Code	17	5052	18	6064	2324	19	1516	4041	25	21	
<b>19</b>	Coefficient	0.2793	0.1226	0.0865	0.0797	0.0383	0.0315	0.0218	0.0117	0.0098	0.0051	<b>0.5612</b>
	NACE Code	19	1516	2324	5052	6064	17	25	21	4041	28	
<b>20</b>	Coefficient	0.1555	0.1349	0.1216	0.0845	0.0632	0.0250	0.0210	0.0176	0.0175	0.0150	<b>0.7407</b>
	NACE Code	20	2324	0105	5052	6064	4041	21	25	1014	27	
<b>21</b>	Coefficient	0.2619	0.0941	0.0859	0.0510	0.0464	0.0349	0.0228	0.0207	0.0167	0.0146	<b>0.7199</b>
	NACE Code	21	2324	5052	6064	4041	0105	1014	25	17	29	
<b>22</b>	Coefficient	0.2314	0.0804	0.0507	0.0486	0.0372	0.0304	0.0220	0.0122	0.0033	0.0031	<b>0.6125</b>
	NACE Code	21	5052	6064	2324	22	25	4041	29	19	27	
<b>2324</b>	Coefficient	0.2241	0.2165	0.0707	0.0619	0.0168	0.0159	0.0105	0.0100	0.0087	0.0068	<b>0.7323</b>
	NACE Code	1014	2324	5052	6064	25	0105	21	4041	27	26	
<b>25</b>	Coefficient	0.3103	0.0932	0.0840	0.0523	0.0289	0.0287	0.0116	0.0106	0.0105	0.0104	<b>0.7267</b>
	NACE Code	2324	25	5052	6064	27	4041	21	17	26	28	
<b>26</b>	Coefficient	0.1413	0.1404	0.0723	0.0704	0.0548	0.0323	0.0223	0.0181	0.0076	0.0064	<b>0.6280</b>
	NACE Code	1014	26	5052	2324	6064	4041	21	29	28	27	
<b>27</b>	Coefficient	0.4133	0.0751	0.0538	0.0502	0.0501	0.0313	0.0184	0.0139	0.0086	0.0058	<b>0.7567</b>
	NACE Code	27	5052	6064	1014	4041	26	2324	29	28	20	
<b>28</b>	Coefficient	0.3312	0.0800	0.0567	0.0506	0.0385	0.0225	0.0160	0.0145	0.0110	0.0092	<b>0.6937</b>
	NACE Code	27	5052	28	6064	2324	29	4041	25	26	21	
<b>29</b>	Coefficient	0.1937	0.1094	0.0758	0.0439	0.0269	0.0222	0.0186	0.0162	0.0161	0.0135	<b>0.6219</b>
	NACE Code	27	29	5052	6064	2324	31	28	4041	25	26	
<b>30</b>	Coefficient	0.1298	0.0661	0.0617	0.0404	0.0229	0.0176	0.0143	0.0103	0.0090	0.0074	<b>0.5612</b>
	NACE Code	32	30	5052	6064	27	2324	31	4041	21	22	
<b>31</b>	Coefficient	0.1471	0.1209	0.0876	0.0545	0.0473	0.0464	0.0400	0.0394	0.0210	0.0158	<b>0.7060</b>
	NACE Code	31	27	5052	25	6064	2324	4041	28	32	1014	
<b>32</b>	Coefficient	0.4075	0.1091	0.0462	0.0436	0.0432	0.0215	0.0134	0.0080	0.0075	0.0057	<b>0.7863</b>
	NACE Code	32	5052	27	31	6064	25	2324	21	18	33	
<b>33</b>	Coefficient	0.1451	0.1082	0.0747	0.0663	0.0592	0.0494	0.0383	0.0376	0.0250	0.0136	<b>0.7093</b>
	NACE Code	33	5052	27	2324	32	6064	29	25	26	28	
<b>34</b>	Coefficient	0.2267	0.1347	0.1019	0.0721	0.0706	0.0474	0.0182	0.0152	0.0083	0.0080	<b>0.7573</b>
	NACE Code	34	27	5052	25	28	6064	2324	26	4041	29	
<b>35</b>	Coefficient	0.0728	0.0711	0.0654	0.0572	0.0411	0.0325	0.0325	0.0206	0.0190	0.0176	<b>0.5369</b>
	NACE Code	27	28	35	5052	6064	29	2324	25	34	31	
<b>3637</b>	Coefficient	0.2778	0.0939	0.0601	0.0585	0.0579	0.0539	0.0316	0.0276	0.0200	0.0102	<b>0.7507</b>
	NACE Code	27	5052	20	17	6064	25	28	2324	3637	21	

In Table 75, in the sense of partial linkage coefficients, sectors where the industrial sub sectors use the most inputs for each unit production (inter-sectoral dependency) and ratios of inputs utilized by these sectors are shown. The first row of the table shows the NACE

codes of the sectors ("Sector" column), followed by the ratios of inputs acquired from other sectors as sorted by size, and names of these sectors (by NACE code).

Accordingly, for instance let's consider the Food, Beverage and Tobacco sector with 1516 NACE coded. The total of all intermediate inputs in this sector's total production is 0.7393 (the "Total" column of the table), and the Agriculture, Hunting, Silviculture and Fishing sector (code no 0105) is ranked first with a share of 0.3603 in input utilization (column no 1 of the table). Based on these facts, it is observed that Food, Beverage and Tobacco Production in Turkey relies upon agricultural activities, and that major source of input is agriculture. Considering that regional geographic conditions for raw material procurement constitute a major parameter in regional planning and formulation of the sectoral development road maps, the answer to the question of how dependent the designated production pattern is to other sectors and whether backward activities that would provide input are sufficient or not may be revealed based on these coefficients. In other words, if products necessary for, let's say, Food, Beverage and Tobacco Production can be obtained from the region (if the region hosts sufficient agricultural activities), investments for establishing a Food and Beverage sector in that region would derive a major advantage, allowing to sketch out an investment profile suiting the raw material pattern. Ranked second in the input utilization of the sector no 1516 is the sector itself with an input coefficient of 0.1418. Here, it may be argued that, after agricultural inputs that have the highest weight in the sector's own production, the sector utilizes its own inputs as "intermediate products". The third rank is occupied by the Whole and Retail Trade, Maintenance and Repair sector (code no 5052) with a relatively much lower coefficient of 0.0750.

Total backward linkages for the manufacturing industry sectors provided in Table 76 express the marginal income (demand) effect of this sector's products. In other words, it may be monitored what change in the production of the related sector will be triggered by one unit of increase in demand to each product of the sector, and what subsequent effect such change will induce in the production of the sector's itself and other sectors. Here, it is interesting to see that all partial total backward linkages presented in the first column of the table are bigger than 1. The reason is that, as the definition of linkage coefficient implies, for a unit change of increase in demand to any sector product, one unit of increase will be

required in production to meet such growing demand. Therefore, the integer part (1) of the coefficient directly denotes the production required to meet the final demand.

**Table 76: Total Partial Backward Linkage Coefficients for Sectors of the Manufacturing Industry**

<b>Sector</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>Total</b>
<b>1516</b>	Coefficient	1.1855	0.5039	0.1495	0.1201	0.1084	0.0440	0.0392	0.0369	0.0365	0.0302	<b>2.4408</b>
	NACE Code	1516	0105	5052	6064	2324	1014	4041	21	25	27	
<b>17</b>	Coefficient	1.5395	0.2974	0.1914	0.1460	0.0951	0.0833	0.0709	0.0341	0.0334	0.0239	<b>2.7725</b>
	NACE Code	17	2324	5052	6064	1014	0105	4041	27	25	21	
<b>18</b>	Coefficient	1.0629	0.6734	0.1984	0.1966	0.1483	0.0666	0.0550	0.0547	0.0418	0.0313	<b>2.8326</b>
	NACE Code	18	17	2324	5052	6064	1014	4041	0105	19	27	
<b>19</b>	Coefficient	1.3883	0.2306	0.2067	0.1948	0.1436	0.1025	0.0796	0.0735	0.0534	0.0507	<b>2.8192</b>
	NACE Code	19	2324	1516	5052	6064	0105	17	1014	4041	25	
<b>20</b>	Coefficient	1.1867	0.2749	0.1850	0.1809	0.1671	0.1103	0.0827	0.0714	0.0465	0.0381	<b>2.6539</b>
	NACE Code	20	2324	0105	5052	6064	1014	4041	27	21	25	
<b>21</b>	Coefficient	1.3678	0.2303	0.1881	0.1549	0.1309	0.1161	0.0750	0.0465	0.0452	0.0445	<b>2.6901</b>
	NACE Code	21	2324	5052	6064	4041	1014	0105	27	17	25	
<b>22</b>	Coefficient	1.0437	0.3364	0.1671	0.1598	0.1408	0.0843	0.0671	0.0528	0.0403	0.0283	<b>2.4201</b>
	NACE Code	22	21	5052	2324	6064	4041	1014	25	27	29	
<b>2324</b>	Coefficient	1.3488	0.3325	0.1596	0.1585	0.0615	0.0591	0.0382	0.0350	0.0289	0.0253	<b>2.5450</b>
	NACE Code	2324	1014	6064	5052	4041	27	0105	25	21	29	
<b>25</b>	Coefficient	1.1213	0.4939	0.1853	0.1633	0.1480	0.0997	0.0915	0.0341	0.0303	0.0273	<b>2.7156</b>
	NACE Code	25	2324	5052	6064	1014	27	4041	21	17	26	
<b>26</b>	Coefficient	1.1725	0.2302	0.1577	0.1476	0.1388	0.0944	0.0546	0.0451	0.0379	0.0184	<b>2.3337</b>
	NACE Code	26	1014	2324	5052	6064	4041	27	21	29	28	
<b>27</b>	Coefficient	1.7524	0.1911	0.1744	0.1672	0.1549	0.0951	0.0702	0.0397	0.0242	0.0152	<b>2.9235</b>
	NACE Code	27	5052	6064	4041	1014	2324	26	29	28	21	
<b>28</b>	Coefficient	1.0738	0.6424	0.1901	0.1644	0.1206	0.1031	0.0977	0.0464	0.0435	0.0292	<b>2.7742</b>
	NACE Code	28	27	5052	6064	2324	4041	1014	29	26	25	
<b>29</b>	Coefficient	1.1387	0.4208	0.1725	0.1415	0.1012	0.0863	0.0733	0.0396	0.0374	0.0338	<b>2.5447</b>
	NACE Code	29	27	5052	6064	2324	4041	1014	26	31	28	
<b>30</b>	Coefficient	1.0726	0.2402	0.1449	0.1185	0.0952	0.0759	0.0481	0.0390	0.0351	0.0282	<b>2.3096</b>
	NACE Code	30	32	5052	6064	27	2324	4041	1014	31	21	
<b>31</b>	Coefficient	1.1841	0.3143	0.1978	0.1567	0.1542	0.1286	0.1033	0.0843	0.0604	0.0464	<b>2.7527</b>
	NACE Code	31	27	5052	6064	2324	4041	1014	25	28	32	
<b>32</b>	Coefficient	1.6973	0.2668	0.1886	0.1700	0.1051	0.0931	0.0574	0.0561	0.0554	0.0318	<b>3.0970</b>
	NACE Code	32	5052	27	6064	2324	31	25	1014	4041	21	
<b>33</b>	Coefficient	1.1714	0.2254	0.2207	0.1775	0.1607	0.1227	0.0782	0.0657	0.0644	0.0619	<b>2.7369</b>
	NACE Code	33	5052	27	2324	6064	32	1014	25	29	4041	
<b>34</b>	Coefficient	1.3026	0.3931	0.2347	0.1726	0.1331	0.1165	0.1088	0.0810	0.0797	0.0465	<b>2.9609</b>
	NACE Code	34	27	5052	6064	2324	25	28	1014	4041	26	
<b>35</b>	Coefficient	1.0708	0.2258	0.1347	0.1210	0.1031	0.0913	0.0615	0.0554	0.0519	0.0379	<b>2.2793</b>
	NACE Code	35	27	5052	6064	2324	28	4041	1014	29	25	
<b>3637</b>	Coefficient	1.0240	0.5415	0.2151	0.1823	0.1499	0.1046	0.0916	0.0854	0.0783	0.0760	<b>2.9144</b>
	NACE Code	3637	27	5052	6064	2324	17	1014	4041	20	25	

Again, analysing partial coefficients representing the ratios of total inputs to be procured by sector no 1516 from other sectors reveals that the sector itself is ranked first with a coefficient rating of 1.1855. However, as described in the foregoing sentence, since the integer part of this coefficient denotes the increase in production necessary to meet the rise in final demand, agriculture sector (code no 0105) appears to be receiving the highest impact (with the coefficient 0.5039) Here, the following approach will be helpful for clarity:

*Demand to the final product of the sector in question increases by 1 unit → the sector's production to meet the demand increases by 1 unit → the sector's utilization of inputs from other sectors increase by 1 unit → production of all other sectors with direct backward linkage increases → the demand of other sectors to input, for their own production, from all sectors with backward linkage including the sector concerned increases → production of all input-supplying sectors, including the sector concerned, increases to meet the growing input demand → the input utilization of all sectors, including the sector concerned, increases → ..... → ...*

The total backward linkage coefficient of 2.4408 provided for sector no 1516 in Table 76 indicates the total increase in economy as a result of the production cycle described above. On the other hand, partial coefficients denote increase in total production in each sector with backward linkage (input supplier) again as a result of this cycle. In this respect, it may be argued that total backward linkage coefficients can be expressed as "value added production chain", and that sectors trigger other sectors, yielding the total production to be generated.

In Table 77, total partial forward linkage coefficients denote the increase in the productions of the sectors based on the assumption that final demand to the products of all these sectors would increase by 1 unit. First column of Table 76 and Table 77 would both show the same values. Because, the effect induced by one unit of increase in the final demand of the sector concerned is reflected (the same effect with the total backward linkage effect). However, unlike total backward linkage, since increase in demand to the products of all sectors occurs simultaneously and by the same amount (one unit), coefficients in second and subsequent columns of sectors in the table vary, leading the sectors to increase their own production by an amount (at a rate) sufficient to meet the increase in final demand of their

own sectors besides meeting the demand triggered by the production increase of other sectors.

**Table 77: Total Partial Forward Linkage Coefficients for Sectors of the Manufacturing Industry**

<b>Sector</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>Total</b>
<b>1516</b>	Coefficient	1.1855	0.2067	0.1898	0.0421	0.0226	0.0201	0.0174	0.0151	0.0136	0.0135	<b>1.8703</b>
	NACE Code	1516	19	55	0105	18	85	21	2324	75	20	
<b>17</b>	Coefficient	1.5395	0.6734	0.1046	0.0796	0.0452	0.0303	0.0267	0.0255	0.0244	0.0243	<b>2.8509</b>
	NACE Code	17	18	3637	19	21	25	34	20	32	5052	
<b>18</b>	Coefficient	1.0629	0.0154	0.0071	0.0062	0.0054	0.0049	0.0043	0.0042	0.0042	0.0039	<b>1.1740</b>
	NACE Code	18	32	27	30	17	19	28	75	3637	85	
<b>19</b>	Coefficient	1.3883	0.0418	0.0072	0.0052	0.0039	0.0028	0.0027	0.0024	0.0019	0.0019	<b>1.4754</b>
	NACE Code	19	18	32	22	30	3637	17	75	20	33	
<b>20</b>	Coefficient	1.1867	0.0783	0.0260	0.0177	0.0140	0.0113	0.0101	0.0099	0.0070	0.0068	<b>1.4417</b>
	NACE Code	20	3637	45	21	27	35	28	32	31	29	
<b>21</b>	Coefficient	1.3678	0.3364	0.0465	0.0451	0.0382	0.0369	0.0341	0.0332	0.0318	0.0304	<b>2.4547</b>
	NACE Code	21	22	20	26	19	1516	25	33	32	3637	
<b>22</b>	Coefficient	1.0437	0.0171	0.0139	0.0133	0.0126	0.0095	0.0090	0.0085	0.0080	0.0078	<b>1.2724</b>
	NACE Code	22	9095	5052	30	7074	85	75	6064	80	6567	
<b>2324</b>	Coefficient	1.3488	0.4939	0.2974	0.2749	0.2306	0.2303	0.1984	0.1775	0.1598	0.1577	<b>5.7086</b>
	NACE Code	2324	25	17	20	19	21	18	33	22	26	
<b>25</b>	Coefficient	1.1213	0.1165	0.0843	0.0760	0.0657	0.0574	0.0528	0.0507	0.0445	0.0381	<b>2.1783</b>
	NACE Code	25	34	31	3637	33	32	22	19	21	20	
<b>26</b>	Coefficient	1.1725	0.1331	0.0702	0.0510	0.0465	0.0456	0.0435	0.0396	0.0381	0.0347	<b>2.0426</b>
	NACE Code	26	45	27	33	34	85	28	29	31	3637	
<b>27</b>	Coefficient	1.7524	0.6424	0.5415	0.4208	0.3931	0.3143	0.2258	0.2207	0.2186	0.1886	<b>5.8940</b>
	NACE Code	27	28	3637	29	34	31	35	33	45	32	
<b>28</b>	Coefficient	1.0738	0.1088	0.0913	0.0833	0.0604	0.0477	0.0338	0.0287	0.0242	0.0232	<b>1.8532</b>
	NACE Code	28	34	35	45	31	3637	29	33	27	25	
<b>29</b>	Coefficient	1.1387	0.0644	0.0519	0.0464	0.0415	0.0397	0.0379	0.0360	0.0352	0.0344	<b>1.9430</b>
	NACE Code	29	33	35	28	1014	27	26	31	45	21	
<b>30</b>	Coefficient	1.0726	0.0082	0.0027	0.0026	0.0024	0.0023	0.0022	0.0021	0.0019	0.0019	<b>1.1282</b>
	NACE Code	30	32	6064	27	33	80	7074	29	28	3637	
<b>31</b>	Coefficient	1.1841	0.0931	0.0459	0.0374	0.0351	0.0340	0.0299	0.0291	0.0249	0.0199	<b>1.7353</b>
	NACE Code	31	32	4041	29	30	45	33	35	1014	75	
<b>32</b>	Coefficient	1.6973	0.2402	0.1227	0.0464	0.0270	0.0185	0.0146	0.0115	0.0075	0.0061	<b>2.2855</b>
	NACE Code	32	30	33	31	29	20	6064	9095	28	3637	
<b>33</b>	Coefficient	1.1714	0.0209	0.0125	0.0111	0.0074	0.0042	0.0037	0.0025	0.0022	0.0021	<b>1.2596</b>
	NACE Code	33	85	32	30	31	34	4041	29	1014	80	
<b>34</b>	Coefficient	1.3026	0.0327	0.0266	0.0217	0.0151	0.0130	0.0123	0.0116	0.0107	0.0105	<b>1.6305</b>
	NACE Code	34	35	6064	5052	29	31	28	33	25	3637	
<b>35</b>	Coefficient	1.0708	0.0316	0.0071	0.0023	0.0022	0.0022	0.0015	0.0014	0.0014	0.0013	<b>1.1449</b>
	NACE Code	35	75	6064	1014	85	9095	2324	34	27	3637	
<b>3637</b>	Coefficient	1.0240	0.0092	0.0091	0.0089	0.0074	0.0055	0.0054	0.0051	0.0045	0.0045	<b>1.1460</b>
	NACE Code	3637	55	32	18	27	30	9095	28	21	6064	

The interpretation of the table again for the sector no 1516 would reveal that the value of the first row will be the same with the total partial backward linkage. However, for instance

the sector at the second row of the table (code no 19- Leather Treatment and Leather-Made Products with the coefficient of 0.2067) appears to be the second sector making highest demand to the products of the sector no 1516 for input utilization as triggered by an equal (but for all sectors) total increase in demand throughout these sectors. The reason underlying the second rank of the leather sector is animal feed production covered by the Food and Beverage sector. Ranked third is the Hotels and Restaurants sector (code no 55). Considering the fact that major part of Food and Beverage production is utilized in Hotels and Restaurants, that the sector providing major input to these sectors is the sector no 1516, and that hotels and restaurants will experience a boom in the sale of foods and beverages triggered by increase in income (in terms of one unit of increase in demand to all sectors), it may be concluded that these sectors are crucial for the Food and Beverage sector. To clarify the foregoing relationship, the following cyclic approach may be suggested to address the total forward linkage coefficient of the sector:

*Demand to all sectors increases by 1 unit → all sectors increase by 1 unit their production to meet this demand → the sector concerned increases its production at an essential rate not only due to the increase in final demand of its own sector but also for meeting the rise in demand to input supplied by the sector resulting from increase in production of other sectors (the final product of the sector concerned is at the same time an intermediate input to the production of other sectors) → as the sector's need in input increases due to the rise in its production, the production of other sectors supplying input to the sector concerned increases → the intermediate demand of other sectors to the sector due to such stimulated increase in production grows → the production of the sector concerned increases to meet such intermediate demand → ... → ...*

#### **5.4.2.4. Assessment of Investment Areas by Sector**

Reminding the previous typical classification, namely mature clusters, potential clusters and candidate clusters, applied to sectors displaying an clustering character within the TR52 region;

**Mature Cluster:** Food, Machinery Equipment and Motor Road Vehicles sectors,

**Potential Cluster:** Rubber and Plastics, Base Metal and Metalware sectors,

**Candidate Cluster:** Mineral Products, Metal, Motor Road Vehicles, Leather and Leather Products, Garment, and Wood and Wood Products sectors.

Table 78 has been designed to cumulatively present the performances of these sectors for the 2005-2010 period, and linkage coefficients obtained from the I/O tables.

**Table 78: Assessment of Sectors of Manufacturing Industry Showing Potential in the TR52 Region**

Sector	Cluster Level	Performance Ranking by Criteria for the 2006-2010 Period (*)								Input/Output Table Coefficients (**)							
		Production Index	CUR	Export	RCA	Employment	Productivity	WPI	Overall	DBL		DFL		TBL		TFL	
										Value	Rank	Value	Rank	Value	Rank	Value	Rank
Foodstuffs and Beverages	Mature	13	5	14	5	3	21	4	5	0,739	6	0,251	17	2,441	16	1,870	9
Machinery and Equipment	Mature	9	11	12	14	5	11	12	12	0,622	17	0,272	16	2,545	15	1,943	8
Motor Land Vehicles	Mature	7	8	15	9	8	14	16	7	0,757	3	0,342	14	2,961	2	1,631	12
Plastics and Rubber	Potential	16	16	9	8	2	19	7	6	0,727	10	0,767	5	2,716	11	2,178	6
Base Metal	Potential	7	10	11	13	9	18	3	8	0,757	2	0,852	2	2,923	3	5,894	1
Metalware	Potential	10	12	10	6	4	17	6	4	0,694	15	0,698	8	2,774	7	1,853	10
Garments	Candidate	20	17	21	1	22	16	14	20	0,722	11	0,090	20	2,833	5	1,174	17
Leather Products	Candidate	12	5	17	16	7	9	7	13	0,731	8	0,447	12	2,819	6	1,475	13
Wood and Wooden Products	Candidate	1	4	7	10	11	1	19	2	0,741	5	0,731	7	2,654	13	1,442	14
Mineral Products	Candidate	16	18	16	2	16	13	10	10	0,628	16	0,836	3	2,334	18	2,043	7
Furniture	Candidate	4	22	13	7	15	2	16	8	0,751	4	0,139	19	2,914	4	1,146	18

Source: Our own calculations

(\*) : Though the performance assessment period is originally 2005-2010, it has been switched to 2006-2010 as percent variations are assumed. Rankings in these columns display the sector's standing among 22 main sectors according to NACE Rev. 1.1. The column "overall" shows the performance rank of the sector for the entirety of the period on the basis of all criteria (1: highest rank, 22: lowest rank)

(\*\*) "Value" represents the coefficient value obtained from the I/O table covering 33 sectors aggregated according to NACE Rev. 1.1. "Rank" represents the rank of the sector's coefficient among 20 sectors since the number of sub sectors of the manufacturing industry has been lowered to 20 due to clustering (1: highest rank, 20: lowest rank)

Based on the data presented in Table 78, our general approach towards sectors holding the "mature cluster" character within the context of favourable fields of investment is to place emphasis on making investments in sectors involved in this cluster with strong forward and backward linkages rather than making new investments that may adversely impact the competitive power of current facilities through creating added capacity in these sectors. In this respect;

The **Food sector** is ranked the 5<sup>th</sup> by performance among 22 sub sectors of the manufacturing industry. It appears to be one of the well-performing sectors. High backward linkage coefficient of the sector (the sector is ranked 6<sup>th</sup> with a coefficient of 0.739), underlining particularly the agricultural industrial character of this sector points to the opinion that, the sector is promising as it facilitates to the process of realizing the agricultural potential of the region, conducting food and beverage production in line with the agricultural product texture of the region that would yield in advantage in terms of raw material procurement, and supporting agricultural production in the region to maintain sustainability. Comparing the total backward linkage coefficient of the sector (2.441) to other sectors reveals that this coefficient is above the average, and that sector products are primarily employed by end consumers (direct forward linkage coefficient is 0.179). Sectors to which the food sector supplies highest amount of inputs are, in order, Agriculture and Stock Farming, Trade, Transport, Warehousing and Communication (Logistics). In this respect, we are of the opinion that investments in sectors in particular to which agricultural enterprises supply inputs are necessary for the development of the sector. The fact that food sector is ranked 21<sup>st</sup> by productivity in the performance ranking of sectors displays the need to make investments that would boost productivity and bring in innovation. Furthermore, 5<sup>th</sup> rank of the sector by CUR (Capacity Utilization Ratio) within the manufacturing industry demonstrates a buoyant demand to the sector.

The **Machinery and Equipment Sector** stands as a sector displaying a mature cluster character within the TR52 region. It has a mid rank (12<sup>th</sup> rank) by performance within the manufacturing industry. Considering the linkage coefficients of the sector and other criteria that serve as basis to the sector's rank by performance reveals that, penetration of a new company in the sector under prevailing circumstances would not derive the expected

benefit. As a matter of fact, the sector is ranked 9<sup>th</sup> by manufacturing index, and 11<sup>th</sup> by CUR. On the other hand, the fact that the Base Metal sector, where this sector utilizes the highest amount of input, stands as a potential cluster in the region may be considered as an advantage.

**Motor Road Vehicles Sector**, involved in the mature cluster category, is ranked 7<sup>th</sup> by performance. It is observed that criteria that are decisive in performance including price increases, productivity and export growth potential are poor compared to other sub sectors of the manufacturing industry. On the other hand, since the sector has high direct and total backward linkage coefficients, it appeals to a wide cluster of supplier sectors.

All three sectors mentioned above sell majority of their products to end consumers (all of these three sectors have low direct forward linkage coefficients).

The Plastic and Rubber sector, Base Metal and Metalware sectors, involved in the **potential cluster** category, exhibit a similar profile by performance. Another common characteristic of these sectors is that lowest increases within the manufacturing industry in terms of productivity occur in these sectors. In this respect, it is understood that investments that would enhance quality, remove bottlenecks and boost technological developments are necessary. In these sectors, the Base Metal sector differs from Plastic and Rubber sector and Metalware sector due to its high linkage coefficients. Therefore, this sector where the mechanism of boosting and accelerating production in three sectors is mostly applicable appears to be attractive for such sort of investments already mentioned.

From the angle of **candidate clusters**, we are of the opinion that making a new investment in Mineral Products and Garment sectors is not very competitive, particularly due to the low performances of these sectors. Moreover, Wood and Wood Products sector appears to be a sector towards which new investments may be targeted thanks to its growing performance over the last years throughout the country (the sector is ranked 2<sup>nd</sup> among 22 sectors) and high linkage coefficients. Though ranked 8<sup>th</sup> by performance, the furniture sector poses risk for new investments as it is ranked lowest in this category within the manufacturing industry due to very poor seasonal increase in CUR.

As a consequence, despite it is clear that clustering characteristics and performances of the sectors are very critical criteria for new investments, we are of the opinion that the

production composition and inter-sectoral interaction factors are at least as decisive as these criteria for more medium and longer term and from the angle of regional development perspective. In terms of creating value added in the region or upgrading the current value added composition, it would be inevitable to handle the "value added " concept from a broader perspective. From a shallow point of view, if we consider the value added concept that expresses the value paid in production factors as total additional production produced in the economy upon one unit of production in the sector (value not initially present yet appearing as a result of the increase in the production of a particular sector), then the variable that would express the conveyance of the sectoral value added production capacity to economical growth and production rise through the accelerator mechanism would be the Total Backward Linkage Coefficient (TBLC). Certainly, it should be noted that the size expressed by the Total Backward Linkage Coefficient is not in nature of a "value added" within the meaning of the one typically used in national income calculations, and therefore the production rise created does not necessarily mean the creation of a national income in the same amount. However, factors such as what sectors economical recovery may be initiated in by the aid of TBLC (what sector's production should be prioritized for the more effective operation of the accelerator mechanism) as well as demographics, logistics, raw material (all production inputs in broader sense) procurement and economical development level may be considered to figure out what sectors have the potential to turn out to be "leading sectors". In addition, if a sector is designated as the "leading sector" (by means of partial TBLC), whether sectors providing input to this sector exist or not, and if yes, the presence of all factors necessary for the effective operation of that sector will be surveyed, and therefore it would be possible to decide on the production pattern of the following period and take measures accordingly.

The other major coefficient that should be well taken into account is the Total Forward Linkage Coefficient (TFLC). The height of this sector denotes that the sector is a major "supplier" sector, and supplies significant amount of input to other sectors. If it is observed that input is supplied to plenty of sectors from TFLC, it will be understood that the sector in question is in one sense a sector that is "inevitable and should strictly carry on its production" for the goal of ensuring that sectors that provide input can maintain their production.

Employing i) Direct Backward Coefficients within the scope of addressing production issues on regional basis, particularly value added shares by sector in policies aimed at direct revenue transfer to the labour factor, and in taking a certain sector's production as basis and accordingly establishing what sectors are linked to this sector and whether their current/future capacities and production quality are sufficient or not; ii) Total Backward Coefficients in maximizing regional production and setting up a whole economic development that would cover as many sectors as possible; iii) Direct Forward Linkage Coefficients in figuring out what entities utilize sectoral production most (final consumers or other sectors) and accordingly developing sales, marketing and distribution channels as well as designing advertisement and promotion activities; and iv) Total Forward Linkage Coefficients in estimating the extent of a potential production increase in what sectors upon one unit of increase in total income as a result of the economic recovery (or as a result of an additional income transfer to end consumers) would be helpful in decision-making and choosing mechanisms.

## **6. TRADE**

### **6.1. Domestic Trade**

Trade sector in Konya has consistently flourished since ancient times thanks to the province's geographical location. The passageway of major caravan routes during the periods of Seljuks and Ottomans, Konya has always staged an intensive trade activity. The most developed economical activity of the province during those times was the trade sector.

Extending on a vast territory along with its arable lands, Konya is a major supplier of crops, in particular cereals, for plenty of provinces today. Developed provincial industry and trade has greatly been underpinned at the agricultural potential of the province. Traded assets of the province are still represented mainly by agricultural and animal products. Thanks to a flourishing manufacturing industry and product diversification, Konya has also been one of the major domestic traders of Turkey with its industrial products. Agricultural machines, automotive supplier industry, rubber, plastic products, agriculture-based processed products, iron-steel products, manufacturing machines, textiles-garments, aluminium and marble constitute major traded industrial products of the province. With the inauguration of the Konya-Kayacık Logistics Centre, trade activities in Konya will be accelerated. Trade is

principally concentrated in the city centre, and trade sector is developed in major districts of the province such as Akşehir, Ereğli and Seydişehir.

As at 2001, the production of the trade sector in the province are ranked fourth in the classification of provincial production with a share of 15.8% after the transport and communication, agriculture and industry sectors. Whole trade and retail trade has a dominant share in overall trade production of the province. As at 2001, while the share of whole trade and retail trade in the overall trade production of the province is 84%, hotels and restaurant services have a share of only 14%. As at the same year, Konya has a share of 94% in the trade production of the TR52 region.

There are 22,000 businesses registered with the Chamber of Commerce in Konya. Of them, 11,265 are engaged in whole trade and retail trade besides production and service activities. Businesses engaged in production, tourism, healthcare, service and other sectors in the province are also active in the trade sector.

The following table shows the number of companies incorporated, liquidated and wound up during 2010 and 2011 in Turkey, the TR52 region and Konya.

**Table 79: Companies Incorporated, Liquidated and Wound Up (Cumulative)**

	Incorporated			Liquidated		Wound Up		
	Company	Cooperative	Real Entity	Company	Cooperative	Company	Cooperative	Real Entity
<b>2010</b>								
<b>Turkey</b>	50.423	1.547	50.943	16.560	3.004	11.400	2.042	29.921
<b>TR52</b>	1.280	99	785	254	117	179	92	735
<b>Konya</b>	1.182	89	646	238	113	164	84	480
<b>2011</b>								
<b>Turkey</b>	53.409	1.033	60.430	20.487	2.723	13.095	1.896	41.130
<b>TR52</b>	1.077	57	1.215	298	105	186	87	735
<b>Konya</b>	991	48	997	261	101	168	86	609

Source: Turkish Union of Chambers and Stock Exchanges

During 2011, 991 companies were incorporated, 261 companies were liquidated and 168 companies were wound up in Konya. During the same period, 53,409 companies were incorporated throughout the country. Of them, Konya accounts for 1.9%. In the whole country, 33,582 companies were liquidated and wound up, and Konya has a share of 1.3% in

this total. Konya is ranked 8<sup>th</sup> by the number of companies incorporated, 10<sup>th</sup> by the number of companies liquidated, and 8<sup>th</sup> by the number of companies wound up.

## 6.2. Foreign Trade

### 6.2.1. Foreign Trade Volume

The trend of foreign trade volume reveals that Konya scored a significant progress in its foreign trade volume particularly during the 2002-2011 period. While the foreign trade volume of the country and the TR52 region grew by 3.3 folds and 6.8 folds respectively, Konya boosted its foreign trade volume by 7 folds during the same period. As a matter of fact, while Konya had a foreign trade volume of 292 million USD in 2002, it jumped to 2,338 million USD in 2011. As an implication of this development, while the foreign trade volume of the province constituted 3‰ of the foreign trade volume of Turkey in 2002, this reached the level of 6‰ in 2011.

**Table 80: Foreign Trade Volume of Turkey, TR52 Region and Konya (thousand USD)**

Year	Turkey		TR52 Region		Konya	
	Foreign Trade Volume	Deficit/Surplus	Foreign Trade Volume	Deficit/Surplus	Foreign Trade Volume	Deficit/Surplus
2002	87,612,886	-15,494,708	343.187	-11.071	291.523	-31.605
2003	116,592,528	-22,086,856	494.478	-37.052	423.960	-65.882
2004	160,706,919	-34,372,613	732.210	-65.348	653.254	-102.142
2005	190,250,559	-43,297,743	933.939	32.087	847.006	-7.036
2006	225,110,850	-54,041,498	1,180,804	-14.676	1,049,361	-62.297
2007	277,334,465	-62,790,965	1,576,664	64.912	1,389,736	-1.514
2008	333,990,770	-69,936,378	1,854,400	204.810	1,646,641	95.805
2009	243,071,034	-38,785,808	1,508,478	254.918	2,055,477	152.514
2010	299,427,551	-71,661,113	2,049,939	261.021	1,781,212	176.360
2011	375,805,937	-105,862,847	2,690,414	108.550	2,338,029	-2.503

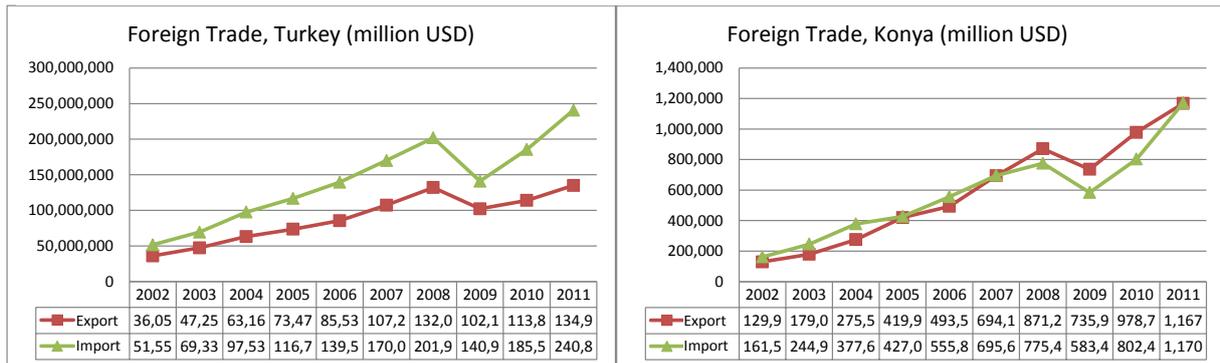
Source: TSI

The foreign trade balance has consistently been suffering a deficit country wide. While the foreign trade deficit of the country was 15,495 million USD in 2002, it rallied to 105,863 million USD in 2011. Though the foreign trade of Konya suffered a deficit between 2002 and

2007, it enjoyed a foreign trade surplus in 2008, 2009 and 2010. The foreign trade balance of the province suffered a deficit of 2.5 million USD in 2011.

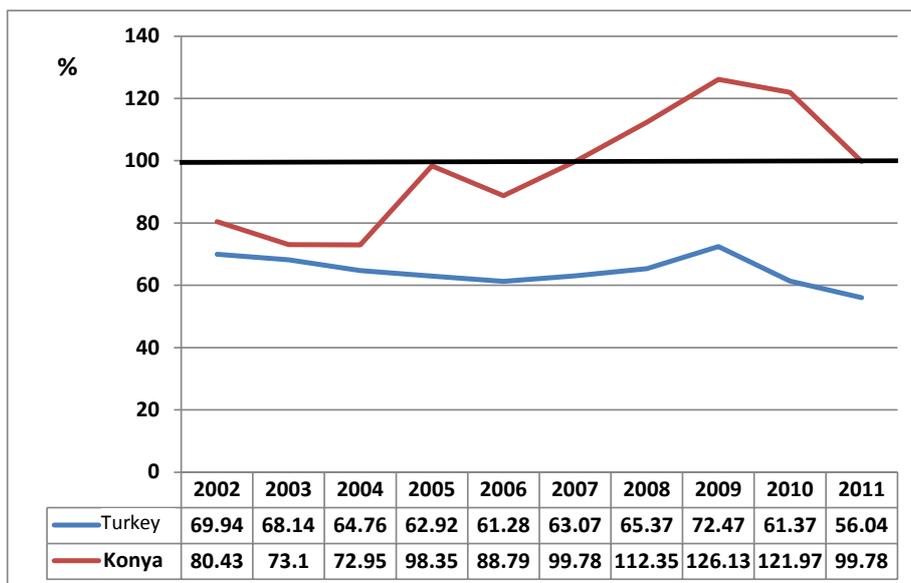
Comparing the foreign trade charts of Turkey and Konya reveals that Turkey suffers a consistently growing foreign trade deficit particularly over the last years, yet Konya tends to yield foreign trade surplus.

**Chart 24: Foreign Trade Performance of Turkey and Konya**



As to the export import coverage ratio, Konya appears to be outdistancing the country average. It is noteworthy that the export import coverage ratio of the province is above 100 during the 2008-2009 period and in 2010. The following chart displays the export import coverage ratios for Turkey and Konya.

**Chart 25: Export-Import Coverage Ratios (%)**



Source: Calculated based upon TSI data

## 6.2.2. Export

The progress of export reveals that while Konya had an export performance of 130 million USD in 2002, it consistently scored a rise and reached 1,168 million USD in 2011. Having a share of 3.6‰ in the overall export performance of the country for 2002, the province enjoyed a growing share reaching 8.7‰ in 2011. The provincial export of Konya accounts for 83% of the TR52 Region's export performance.

Export figures for the 2002-2011 period are shown in the table below.

**Table 81: Export Trend (thousand USD)**

Year	Turkey	TR52	TR52/Turkey(%)	Konya	TR52/Turkey (%)
2002	36,059,089	166.058	0.46	129.959	0.36
2003	47,252,836	228.713	0.48	179.039	0.38
2004	63,167,153	333.431	0.53	275.556	0.44
2005	73,476,408	483.013	0.66	419.985	0.57
2006	85,534,676	583.064	0.68	493.532	0.58
2007	107,271,750	820.788	0.77	694.111	0.65
2008	132,027,196	1,029,605	0.78	871.223	0.66
2009	102,142,613	881.698	0.86	735.997	0.72
2010	113,883,219	1,155,480	1.01	978.786	0.86
2011	134,971,545	1,399,482	1.04	1,167,763	0.87

Source: TSI

As the table reveals, while the export performance of Konya scored a rise of around 8 folds during the 2002-2011 period, the country performance is only 2.7 folds for the same period.

The breakdown of provincial export by main sectors reveals that the manufacturing industry has consistently held a share of almost 95% within the total. The following table shows the breakdown of export by main sectors in Konya.

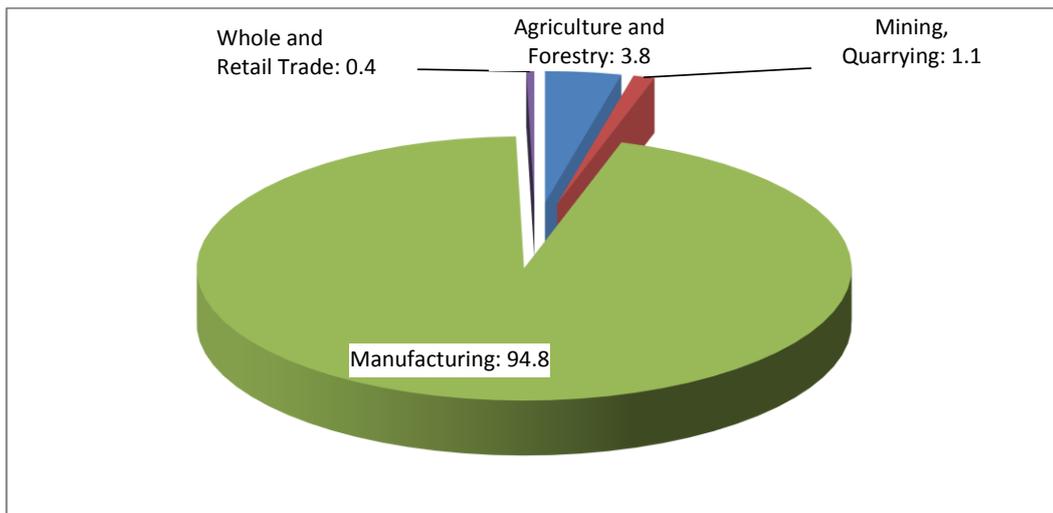
**Table 82: Breakdown of Konya Exports by Sector (thousand USD)**

Year	Agriculture and Forestry	Mining, Quarrying	Manufacturing	Whole and Retail Trade	Total
2002	4.752	451	124.646	111	<b>129.959</b>
2003	6.771	392	171.132	744	<b>179.039</b>
2004	4.644	497	267.779	2.636	<b>275.556</b>
2005	4.525	216	411.495	3.750	<b>419.985</b>
2006	6.928	597	482.635	3.372	<b>493.532</b>
2007	24.539	9.170	657.003	3.398	<b>694.111</b>
2008	33.631	7.327	827.956	2.309	<b>871.223</b>
2009	26.091	4.832	703.347	1.727	<b>735.997</b>
2010	43.820	19.456	913.592	1.917	<b>978.785</b>
2011	67.697	20.134	1,076,795	3.528	<b>1,168,154</b>

Source: TSI

Ranked second after the manufacturing industry in the provincial export performance is agriculture and forestry sectors with an export share of as low as 4%. Even lower, the mining sector has a share of around 1%.

**Chart 26: Breakdown of Konya Exports by Main Sectors (2002-2011 Average) (%)**



The breakdown of provincial export by countries reveals that the export portfolio of the province is really wide. As at 2011, Iraq holds the biggest share in export portfolio of the province with 13.00%, followed by 7.01% by Italy and 6.49% by Iran. Germany, Libya, Bulgaria, Russia, USA, Egypt, Spain, United Kingdom and Saudi Arabia are other major export destinations of Konya. However, the province's export spectrum includes many other countries.

**Table 83: Breakdown of Konya Exports by Country (2011)**

Country	Export (thousand USD)	Share (%)
Iraq	151.781	13.00
Italy	81.867	7.01
Iran	75.867	6.49
Germany	64.279	5.50
Lebanon	54.058	4.62
Bulgaria	37.237	3.18
Russia	36.516	3.12
USA	29.788	2.55
Egypt	29.658	2.53
Spain	29.139	2.49
United Kingdom	27.853	2.38
Saudi Arabia	26.990	2.31
Others	522.730	44.75
<b>TOTAL</b>	<b>1,167,763</b>	<b>100.00</b>

Source: TSI

### 6.2.3. Import

The progress of import reveals that while Konya had an import performance of 162 million USD in 2002, it consistently scored a rise and reached 1,170 million USD in 2011. Having a share of 3.1 thousandth in the overall import performance of the country for 2002, the province enjoyed a growing share reaching 4.8‰ in 2011. Import performance of Konya accounts for more than 90% of the overall import of the TR52 Region.

Import figures for the 2002-2011 period are shown in the table below.

**Table 84: Import Trend (thousand USD)**

Year	Turkey	TR52	TR52/Turkey(%)	Konya	TR52/Turkey (%)
2002	51,553,797	177.129	0.34	161.564	0.31
2003	69,339,692	265.765	0.38	244.921	0.35
2004	97,539,766	398.779	0.41	377.698	0.38
2005	116,774,151	450.926	0.38	427.021	0.36
2006	139,576,174	597.740	0.43	555.829	0.39
2007	170,062,715	755.876	0.44	695.625	0.41
2008	201,963,574	824.795	0.41	775.418	0.38
2009	140,928,421	626.780	0.44	583.483	0.41
2010	185,544,332	894.459	0.63	802.426	0.43
2011	240,834,392	1,290,932	0.54	1,170,266	0.48

Source: TSI

As the table reveals, while the import performance of Konya scored a rise of around 6 folds during the 2002-2011 period, the country performance is only 3.7 folds for the same period.

The breakdown of provincial import by main sectors reveals that the manufacturing industry consistently held a share of 75-96% (average import during the 2002-2011 period is 85%).

The following table shows the breakdown of import by main sectors in Konya.

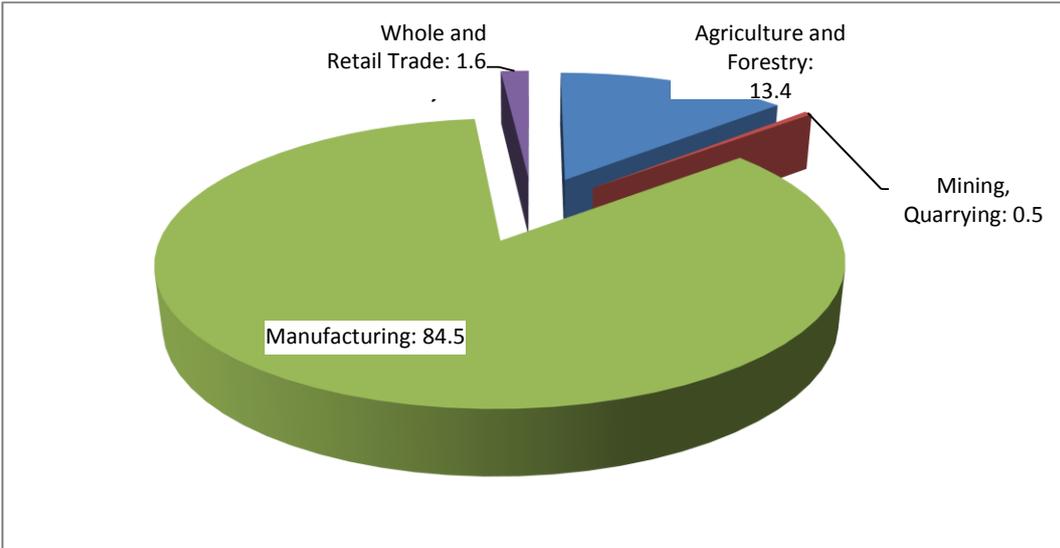
**Table 85: Breakdown of Konya Imports by Sector (thousand USD)**

Year	Agriculture and Forestry	Mining, Quarrying	Manufacturing	Whole and Retail Trade	Total
2002	12.743	2.022	145.253	1.546	<b>161.564</b>
2003	12.870	1.889	228.377	1.785	<b>244.921</b>
2004	29.550	2.494	339.742	5.912	<b>377.698</b>
2005	8.424	2.470	408.768	7.359	<b>427.021</b>
2006	11.213	3.048	535.140	6.428	<b>555.829</b>
2007	86.856	1.627	600.319	6.822	<b>695.625</b>
2008	173.891	3.544	578.206	19.778	<b>775.418</b>
2009	98.624	1.684	455.280	27.895	<b>583.483</b>
2010	134.262	3.470	657.424	7.270	<b>802.426</b>
2011	206.751	4.841	949.339	9.288	<b>1,170,219</b>

Source: TSI

Breakdown of Konya imports by sectors reveals that, agriculture and forestry sector is ranked second after the manufacturing industry with a share ranging between 2-22% (Average import score during the 2002-2011 period is 13.4%).

**Chart 27: Breakdown of Konya Imports by Main Sectors (2002-2011 Average) (%)**



The breakdown of provincial import by countries reveals that the import portfolio of the province is really wide. As at 2011, China holds the biggest share in import portfolio of the province with 12.83%, followed by 10.74% by Russia and 9.20% by Germany. Italy, Taiwan, USA, Poland, Iran, Sweden, Belgium, France, India, Saudi Arabia and South Korea represent other major countries within the import portfolio of the province. There are also many other countries acting as importer for the province.

**Table 86: Breakdown of Konya Imports by Country (2011)**

Country	Import (thousand USD)	Share (%)
China	150.166	12.83
Russia	125.637	10.74
Germany	107.693	9.2
Italy	77.695	6.64
Taiwan	56.348	4.81
USA	52.725	4.51
Poland	39.855	3.41
Iran	26.060	2.23
Sweden	25.588	2.19
Belgium	23.778	2.03
France	23.685	2.02
India	23.649	2.02
Others	437.387	37.37
<b>TOTAL</b>	<b>1,170,266</b>	<b>100.00</b>

Source: TSI

### 6.3. Concentration in Foreign Trade<sup>13</sup>

While concentration in foreign trade is principally defined as the control of foreign trade by a certain number of companies, calculations for the concentration of foreign trade in certain countries, certain sectors (sections) or articles are also commonly effected.

Thanks to the simplicity of calculating the concentration ratio ( $CR_m$ )<sup>14</sup>, stands as a common measure of concentration. Concentration ratio is a concept expressing total shares of a

<sup>13</sup> The design and elaboration of this part of the report has been facilitated to by Mr. Mustafa ŞİMŞEK, the Deputy Manager for Economical and Social Researches.

<sup>14</sup> Another index commonly employed in measuring concentration ratio is the well-known Herfindahl index (H-I). This index is defined as the sum of squares of the shares held by all units, being subject to the calculation of

concentration ratio, in the total, and calculated by means of the following formula:  $H-I = \sum_{i=1}^n P_i^2$ . Where, H-I: denotes the Herfindahl index and  $P_i$  denotes the share of the company, article, sector or country.

certain number of companies, products, sectors or countries.  $CR_m$  takes a value ranging between 0 and 100, and is calculated by means of the formula below.

$$CR_m = \sum_{i=1}^m P_i * 100$$

In the formula,  $CR_m$  denotes the concentration ratio and  $P_i$  denotes the share of the company, article, sector or country.

### **6.3.1. Sector and Country Concentration in Export**

This chapter is aimed at studying the level of concentration in export performance of Konya on regional and sectoral scale. Concentration values constitute a crucial indicator in foreign trade analyses as they display whether there is a diversification in export on sectoral or country level. In a globally-integrated economy, if export income relies upon limited number of sectors and/or countries under an outward-oriented, export-based growth model, then probable fluctuations in the prices of these articles and potential shrinkage in foreign demand may lead to drop and instability in export income. However, if export relies upon product diversification and focuses on plenty of countries, then export income would not drastically drop despite downward prices and shrinkage in demand by certain countries. In this respect, shedding light on sectoral and country concentrations for Konya is essential for addressing the topics already mentioned.

#### **6.3.1.1. Country Concentration Ratios in Export**

In this sub-chapter, country concentration ratios in export will be calculated. Before studying concentration ratios for export, it would be helpful to briefly discuss the export composition of Konya on country basis.

Studying the data presented in Table 87 showing the breakdown of export performance of Konya by countries reveals that the Middle East countries mainly including Iraq, Iran, Libya, Egypt, Saudi Arabia and Syria, the EU countries mainly represented by Italy, Germany, Bulgaria, Spain and United Kingdom, and Russian Federation and USA constitute primary marketplaces for the province. In analysing the foreign trade of Konya, data pertaining to the year 2007 as an ordinary year with no impacts of the crisis, the year 2009 as a period with

significant impacts of the crisis, and year 2011 considered to be the recovery period have been taken into account. In other words, the study is aimed at analysing the impacts of pre-crisis, crisis and post-crisis periods in foreign trade performance of the province.

On the basis of 2011 data, Iraq holds a share of 13.0% in the export performance of Konya followed by Italy (7.0%), Iran (6.5%), Germany (5.5%), Libya (4.6%), Bulgaria (3.2%), Russian Federation (3.1%) and USA (2.6%), constituting major export destinations for the province. One of the interesting facts in the table is that while EU countries had a diminishing share in export performance of Konya during the crisis period, shares of Middle East countries enjoyed a rise. As a matter of fact, while the share of EU countries mainly represented, in this context, by Italy, Germany, Bulgaria, Spain, United Kingdom and Greece, had a share of 28% in the export performance of Konya in 2007, it dropped down to 16% in 2009 when the impacts of the crisis were most intensely felt, and then improved to 22% in 2011, the year of recovery. On the other hand, while the share of Middle East countries, mainly represented in this context by Iraq, Iran, Libya, Egypt, Saudi Arabia and Syria, was 21% in 2007 in the export performance of Konya, this jumped to 33% in 2009 and then receded back to 31% in 2011.

**Table 87: Breakdown of Konya Exports by Country (Thousand USD and % Share)**

Country	2005		2007		2009		2011	
	Thousand USD	% Share	Thousand USD	% Share	Thousand USD	% Share	Thousand USD	% Share
Iraq	46,907	11.2	39,141	5.6	84,608	11.5	151,781	13.0
Italy	31,529	7.5	46,990	6.8	16,904	2.3	81,867	7.0
Iran	19,448	4.6	27,341	3.9	36,494	5.0	75,867	6.5
Germany	33,473	8.0	41,643	6.0	39,014	5.3	64,279	5.5
Lebanon	13,387	3.2	27,864	4.0	23,586	3.2	54,059	4.6
Bulgaria	6,019	1.4	24,239	3.5	10,756	1.5	37,237	3.2
Russian Federation	6,564	1.6	23,182	3.3	13,322	1.8	36,517	3.1
USA	15,728	3.7	25,202	3.6	26,270	3.6	29,789	2.6
Egypt	10,518	2.5	10,125	1.5	28,473	3.9	29,659	2.5
Spain	8,120	1.9	7,542	1.1	8,273	1.1	29,140	2.5
United Kingdom	4,516	1.1	12,113	1.7	13,511	1.8	27,854	2.4
Saudi Arabia	20,864	5.0	23,258	3.4	20,572	2.8	26,990	2.3
Syria	8,581	2.0	15,273	2.2	47,755	6.5	25,988	2.2
Greece	5,308	1.3	59,656	8.6	31,931	4.3	19,080	1.6
Azerbaijan	6,198	1.5	6,306	0.9	9,212	1.3	17,682	1.5
Algeria	3,506	0.8	6,414	0.9	9,252	1.3	17,467	1.5
France	7,447	1.8	11,290	1.6	8,929	1.2	15,966	1.4
Belgium	3,159	0.8	5,508	0.8	10,381	1.4	14,166	1.2
Kazakhstan	8,341	2.0	19,076	2.7	20,004	2.7	13,852	1.2
Georgia	8,626	2.1	15,859	2.3	10,095	1.4	12,720	1.1
Netherlands	5,147	1.2	9,388	1.4	6,417	0.9	12,677	1.1
Poland	3,415	0.8	7,854	1.1	8,261	1.1	12,648	1.1
Jordan	5,877	1.4	10,067	1.5	11,266	1.5	12,583	1.1
Australia	9,743	2.3	13,344	1.9	12,881	1.8	12,394	1.1
UAE	7,630	1.8	19,066	2.7	17,278	2.3	12,304	1.1
Pakistan	974	0.2	1,553	0.2	3,364	0.5	12,165	1.0
Israel	2,439	0.6	2,998	0.4	6,483	0.9	10,956	0.9
Turkmenistan	1,777	0.4	1,997	0.3	5,303	0.7	10,747	0.9
Kenya	1,096	0.3	1,901	0.3	3,367	0.5	10,476	0.9
South Africa	3,613	0.9	4,977	0.7	4,651	0.6	10,205	0.9
Ukraine	2,140	0.5	7,567	1.1	5,306	0.7	10,011	0.9
Uzbekistan	4,531	1.1	5,816	0.8	11,440	1.6	9,897	0.8
Romania	4,714	1.1	16,756	2.4	8,697	1.2	9,173	0.8
Sudan	4,076	1.0	3,917	0.6	3,123	0.4	8,513	0.7
TRNC	6,287	1.5	6,241	0.9	4,817	0.7	7,940	0.7
Lebanon	1,857	0.4	2,263	0.3	4,097	0.6	7,939	0.7
Tunus	1,275	0.3	1,389	0.2	3,260	0.4	7,493	0.6
Niger	1,349	0.3	4,668	0.7	3,987	0.5	7,279	0.6
Other Countries	83,808	20.0	124,328	17.8	142,657	19.3	200,405	17.2
<b>Grand Total</b>	<b>419,985</b>	<b>100.0</b>	<b>694,111</b>	<b>100.0</b>	<b>735,997</b>	<b>100.0</b>	<b>1,167,763</b>	<b>100.0</b>

Source: TSI

Increase in country concentration implies that exports destinations are limited whereas decrease points to rise in country (market) diversification. In the literature, most commonly the concentration ratios  $CR_4$  and  $CR_8$  are considered. In this respect, country concentration ratios in Konya exports for 2007, 2009 and 2011 are provided in Table 88.

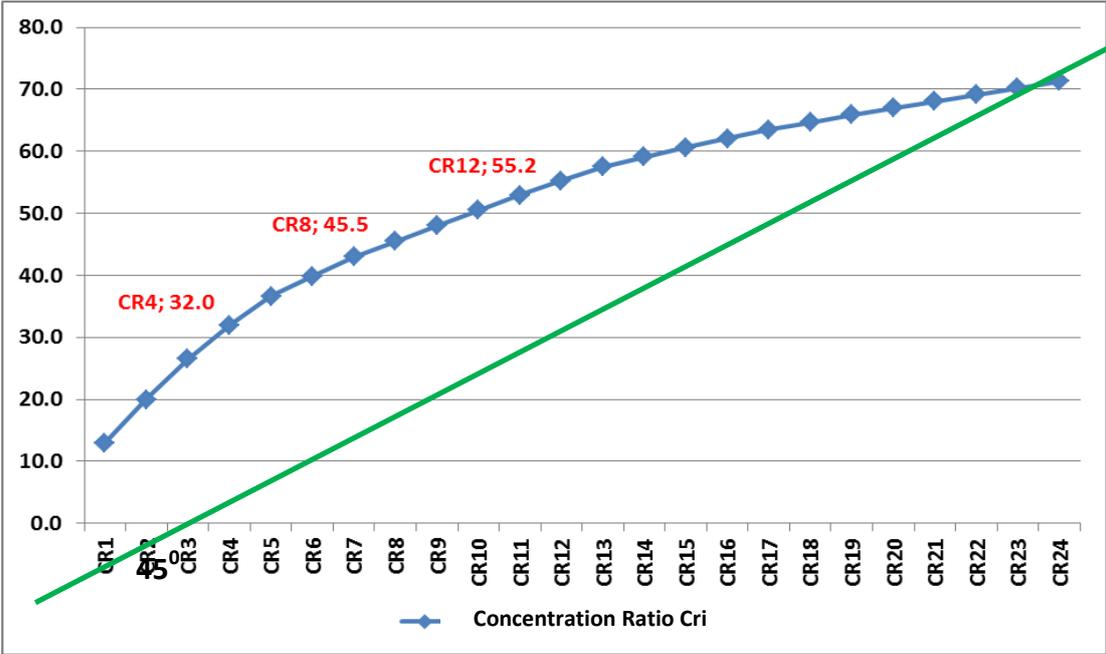
**Table 88: Concentration of Konya Exports by Country (2007, 2009, 2011)**

$CR_i$	Country	2007		Country	2009		Country	2011	
		% Share	$CR_i$ Rate %		% Share	$CR_i$ Rate %		% Share	$CR_i$ Rate %
$CR_1$	Greece	8.6	8.6	Iraq	11.5	11.5	Iraq	13.0	13.0
$CR_2$	Italy	6.8	15.4	Syria	6.5	18.0	Italy	7.0	20.0
$CR_3$	Germany	6.0	21.4	Germany	5.3	23.3	Iran	6.5	26.5
<b><math>CR_4</math></b>	Iraq	5.6	<b>27.0</b>	Iran	5.0	<b>28.2</b>	Germany	5.5	<b>32.0</b>
$CR_5$	Lebanon	4.0	31.0	Greece	4.3	32.6	Lebanon	4.6	36.6
$CR_6$	Iran	3.9	35.0	Egypt	3.9	36.5	Bulgaria	3.2	39.8
$CR_7$	USA	3.6	38.6	USA	3.6	40.0	Russia	3.1	43.0
<b><math>CR_8</math></b>	Bulgaria	3.5	<b>42.1</b>	Lebanon	3.2	<b>43.2</b>	USA	2.6	<b>45.5</b>
$CR_9$	S. Arabia	3.4	45.4	S. Arabia	2.8	46.0	Egypt	2.5	48.0
$CR_{10}$	Russia	3.3	48.8	Kazakhstan	2.7	48.7	Spain	2.5	50.5
$CR_{11}$	Kazakhstan	2.7	51.5	UAE	2.3	51.1	United Kingdom	2.4	52.9
$CR_{12}$	UAE	2.7	54.3	Italy	2.3	53.4	S. Arabia	2.3	55.2
$CR_{13}$	Romania	2.4	56.7	United Kingdom	1.8	55.2	Syria	2.2	57.5
$CR_{14}$	Georgia	2.3	59.0	Russia	1.8	57.0	Greece	1.6	59.1
$CR_{15}$	Syria	2.2	61.2	Australia	1.8	58.8	Azerbaijan	1.5	60.6
$CR_{16}$	Australia	1.9	63.1	Uzbekistan	1.6	60.3	Algeria	1.5	62.1
$CR_{17}$	United Kingdom	1.7	64.8	Jordan	1.5	61.9	France	1.4	63.5
$CR_{18}$	France	1.6	66.5	Bulgaria	1.5	63.3	Belgium	1.2	64.7
$CR_{19}$	Egypt	1.5	67.9	Belgium	1.4	64.7	Kazakhstan	1.2	65.9
$CR_{20}$	Jordan	1.5	69.4	Georgia	1.4	66.1	Georgia	1.1	67.0
$CR_{21}$	Netherlands	1.4	70.7	Indonesia	1.3	67.4	Netherlands	1.1	68.0
$CR_{22}$	Poland	1.1	71.9	Algeria	1.3	68.7	Poland	1.1	69.1
$CR_{23}$	Hungary	1.1	73.0	Azerbaijan	1.3	69.9	Jordan	1.1	70.2
$CR_{24}$	Ukraine	1.1	74.1	France	1.2	71.2	Australia	1.1	71.3
$CR_{25}$	Spain	1.1	75.2	Romania	1.2	72.3	UAE	1.1	72.3

Source: Our own calculations.

While the CR<sub>4</sub> indicator displaying the total shares of top 4 countries in Konya exports for 2007, 2009 and 2011 realized at 27.0%, 28.2% and 32.0% respectively, the CR<sub>8</sub> indicator displaying the total shares of top 8 countries were found to be 42.1%, 43.2% and 45.5% respectively. Konya appears to be relatively satisfying country diversification in export marketplaces.

**Chart 28: Country Concentration Ratios in Konya Imports, 2011**



**6.3.1.2. Sector Concentration Ratios in Export**

This sub chapter is aimed at revealing sectoral concentration in the export performance of Konya. Before proceeding with sectoral concentration ratios, addressing the sectors having major contribution to the export performance of Konya seems to be essential for a better understanding of sectoral concentration.

***Sectoral Composition of Konya exports***

The findings of Table 89 showing sectoral breakdown of Konya exports on the basis of ISIC Rev.3 reveal the major sectors as follows: Machinery and Equipment (29), Food Products and Beverages (15), Motor Road Vehicles (34), Base Metal Industry (27), Agriculture and Stock Farming (1), Metalware Industry (28), Plastic and Rubber Products (25), Non-Metallic Other Minerals (26), Furniture (36) and Textile Products (17).

**Table 89: Breakdown of Konya Exports by Sector (Thousand USD and % Share)**

ISIC Rev.3	2005		2007		2009		2011	
	Thousand USD	% Share	Thousand USD	% Share	Thousand USD	% Share	Thousand USD	% Share
<b>A. AGRICULTURE</b>	<b>4,525</b>	<b>1.1</b>	<b>24,539</b>	<b>3.5</b>	<b>26,091</b>	<b>3.5</b>	<b>67,697</b>	<b>5.8</b>
1. Agriculture and Stock Farming	3,776	0.9	24,016	3.5	25,585	3.5	67,299	5.8
2. Silviculture and Logging	747	0.2	524	0.1	506	0.1	398	0.0
5. Fishing	2	0.0	0	0.0	0	0.0	0	0.0
<b>C. MINING</b>	<b>216</b>	<b>0.1</b>	<b>9,170</b>	<b>1.3</b>	<b>4,832</b>	<b>0.7</b>	<b>20,134</b>	<b>1.7</b>
10. Pit coal, lignite and peat coal	3	0.0	0	0.0	75	0.0	3	0.0
13. Mineral ores	0	0.0	7,519	1.1	267	0.0	3,839	0.3
14. Quarrying and other mining operations	213	0.1	1,651	0.2	4,490	0.6	16,291	1.4
<b>D. MANUFACTURING INDUSTRY</b>	<b>411,495</b>	<b>98.0</b>	<b>657,003</b>	<b>94.7</b>	<b>703,347</b>	<b>95.6</b>	<b>1,076,795</b>	<b>92.2</b>
15. Foodstuffs and beverages	77,282	18.4	91,917	13.2	115,447	15.7	228,522	19.6
17. Textiles	8,800	2.1	10,937	1.6	11,583	1.6	16,210	1.4
18. Garments	2,463	0.6	3,421	0.5	3,680	0.5	4,273	0.4
19. Leather, leather processing and footwear	4,296	1.0	2,847	0.4	737	0.1	1,055	0.1
20. Wood and cork products	802	0.2	1,570	0.2	921	0.1	1,832	0.2
21. Paper and paper products	3,589	0.9	4,801	0.7	6,388	0.9	6,864	0.6
22. Press and media; record, cassette, etc.	495	0.1	263	0.0	129	0.0	271	0.0
23. Refined petroleum products	17	0.0	10	0.0	16	0.0	36	0.0
24. Chemical substances and products	11,084	2.6	28,270	4.1	28,086	3.8	52,257	4.5
25. Plastic and rubber products	13,836	3.3	24,479	3.5	22,004	3.0	45,985	3.9
26. Other non-metallic minerals	18,037	4.3	25,456	3.7	31,786	4.3	34,356	2.9
27. Base metal industry	48,562	11.6	117,961	17.0	38,119	5.2	121,289	10.4
28. Metalware industry	22,780	5.4	36,054	5.2	44,780	6.1	62,508	5.4
29. Machinery and equipment n.e.c	103,622	24.7	155,425	22.4	216,875	29.5	263,785	22.6
30. Office, accounting and IT equipment	89	0.0	108	0.0	116	0.0	156	0.0
31. Electrical machines and devices n.e.c	3,019	0.7	6,181	0.9	4,957	0.7	6,714	0.6
32. Radio, TV, communication equipment and devices	5,549	1.3	2,396	0.3	2,010	0.3	5,120	0.4
33. Medical devices, optical precision instruments	442	0.1	1,865	0.3	1,242	0.2	3,159	0.3
34. Motor vehicles and trailers	79,193	18.9	122,799	17.7	159,022	21.6	202,864	17.4
35. Other transport vehicles	145	0.0	472	0.1	731	0.1	1,221	0.1
36. Furniture and other products n.e.c	7,392	1.8	19,771	2.8	14,718	2.0	18,320	1.6
<b>G. TRADE</b>	<b>3,750</b>	<b>0.9</b>	<b>3,398</b>	<b>0.5</b>	<b>1,727</b>	<b>0.2</b>	<b>3,528</b>	<b>0.3</b>
51. Wastes and scraps	3,750	0.9	3,398	0.5	1,727	0.2	3,528	0.3
<b>TOTAL</b>	<b>419,985</b>	<b>100.0</b>	<b>694,111</b>	<b>100.0</b>	<b>735,997</b>	<b>100.0</b>	<b>1,168,154</b>	<b>100.0</b>

Source: TSI

## Sectoral Concentration in Konya Exports

Sectoral concentration ratios on the basis of ISIC Rev.3 in Konya exports for 2007, 2009 and 2011 are shown in Table 90.

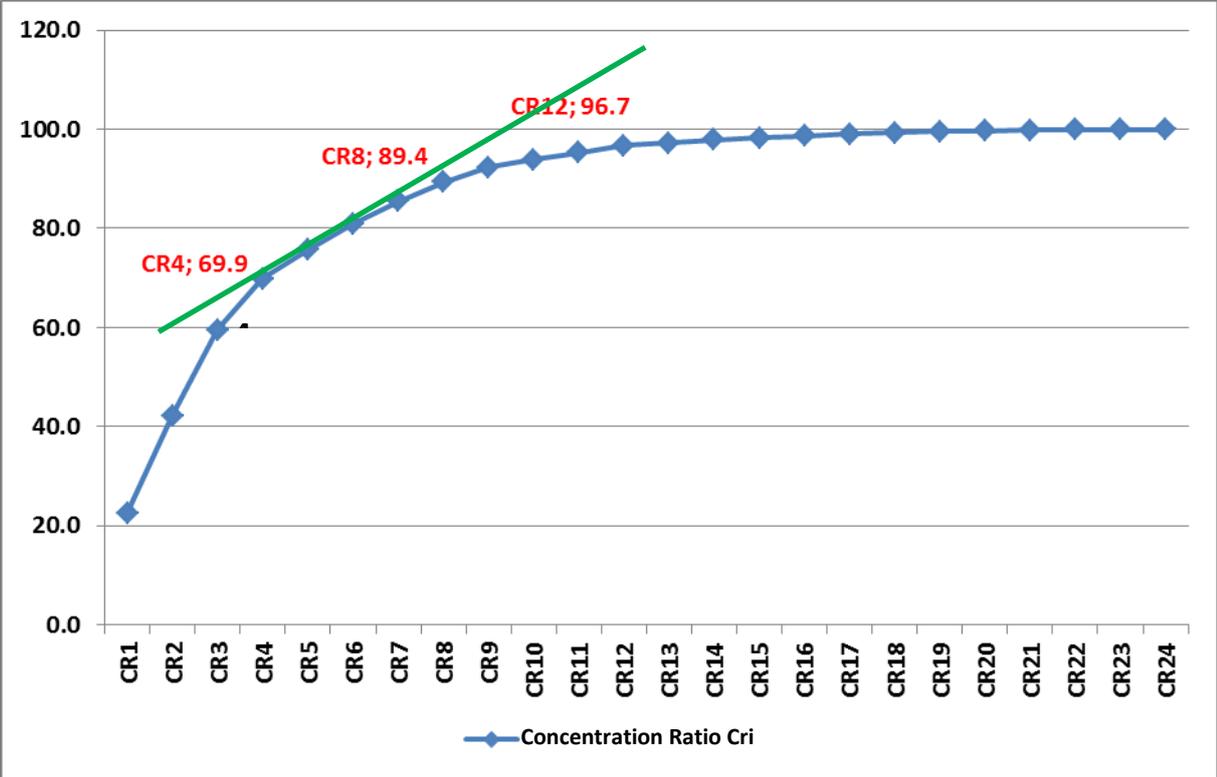
**Table 90: Concentration of Konya Exports by Sector (2007, 2009, 2011)**

CR <sub>i</sub>	Sector	2007		Sector	2009		Sector	2011	
		% Share	CR <sub>i</sub> Rate %		% Share	CR <sub>i</sub> Rate %		% Share	CR <sub>i</sub> Rate %
CR <sub>1</sub>	29. Machinery and equipment n.c.e.	22.4	22.4	29. machinery and equipment n.c.e.	29.5	29.5	29. Machinery and equipment n.c.e.	22.6	22.6
CR <sub>2</sub>	34. Motor road vehicles	17.7	40.1	34. Motor road vehicles	21.6	51.1	15. Foodstuffs and beverages	19.6	42.1
CR <sub>3</sub>	27. Base metal industry	17.0	57.1	15. Foodstuffs and beverages	15.7	66.8	34. Motor road vehicles	17.4	59.5
CR <sub>4</sub>	15. Foodstuffs and beverages	13.2	<b>70.3</b>	28. Metalware industry	6.1	<b>72.8</b>	27. Base metal industry	10.4	<b>69.9</b>
CR <sub>5</sub>	28. Metalware industry	5.2	75.5	27. Base metal industry	5.2	78.0	1. Agriculture and stock farming	5.8	75.7
CR <sub>6</sub>	24. Chemicals	4.1	79.6	26. Other mineral products	4.3	82.3	28. Metalware industry	5.4	81.0
CR <sub>7</sub>	26. Other mineral products	3.7	83.3	24. Chemicals	3.8	86.2	24. Chemicals	4.5	85.5
CR <sub>8</sub>	25. Plastic and rubber products	3.5	<b>86.8</b>	1. Agriculture and stock farming	3.5	<b>89.6</b>	25. Plastic and rubber products	3.9	<b>89.4</b>
CR <sub>9</sub>	1. Agriculture and Stock Farming	3.5	90.2	25. Plastic and rubber products	3.0	92.6	26. Other mineral products	2.9	92.4
CR <sub>10</sub>	36. Furniture	2.8	93.1	36. Furniture	2.0	94.6	36. Furniture	1.6	93.9
CR <sub>11</sub>	17. Textiles	1.6	94.7	17. Textiles	1.6	96.2	14. Quarrying	1.4	95.3
CR <sub>12</sub>	13. Mineral ores	1.1	95.7	21. Paper and paper products	0.9	97.1	17. Textiles	1.4	96.7
CR <sub>13</sub>	31. n.c.e. electrical machines	0.9	96.6	31. N.c.e. electrical machines	0.7	97.7	21. Paper and paper products	0.6	97.3
CR <sub>14</sub>	21. Paper and paper products	0.7	97.3	14. Quarrying	0.6	98.3	31. n.c.e. electrical machines	0.6	97.9
CR <sub>15</sub>	18. Garments	0.5	97.8	18. Garments	0.5	98.8	32. Radio, TV, communication	0.4	98.3
CR <sub>16</sub>	51. Wastes and scraps	0.5	98.3	32. Radio, TV, communication	0.3	99.1	18. Garments	0.4	98.7
CR <sub>17</sub>	19. Leather, leather products	0.4	98.7	51. Wastes and scraps	0.2	99.4	13. Mineral ores	0.3	99.0
CR <sub>18</sub>	32. Radio, TV, communication	0.3	99.1	33. Medical devices	0.2	99.5	51. Wastes and scraps	0.3	99.3
CR <sub>19</sub>	33. Medical devices	0.3	99.3	20. Wood and cork products	0.1	99.6	33. Medical devices	0.3	99.6
CR <sub>20</sub>	14. Quarrying	0.2	99.6	19. Leather, leather products	0.1	99.7	20. Wood and cork products	0.2	99.7
CR <sub>21</sub>	20. Wood and cork products	0.2	99.8	35. Other transport vehicles	0.1	99.8	35. Other transport vehicles	0.1	99.8
CR <sub>22</sub>	2. Silviculture and Logging	0.1	99.9	2. Silviculture and logging	0.1	99.9	19. Leather, leather products	0.1	99.9
CR <sub>23</sub>	35. Other transport vehicles	0.1	99.9	13. Mineral ores	0.0	100.0	2. Silviculture and logging	0.0	100.0
CR <sub>24</sub>	22. Press and media	0.0	100.0	22. Press and media	0.0	100.0	22. Press and media	0.0	100.0
CR <sub>25</sub>	30. Office, accounting	0.0	100.0	30. Office, accounting	0.0	100.0	30. Office, accounting	0.0	100.0

Source: Our own calculations based on TSI figures.

While the CR<sub>4</sub> indicator displaying the total shares of top 4 sectors in Konya exports for 2007, 2009 and 2011 realized at 70.3%, 72.8% and 69.9% respectively, the CR<sub>8</sub> indicator displaying the total shares of top 8 sectors were found to be 86.8%, 89.6% and 89.4% respectively. It is observed that sectoral concentration is quite high in Konya exports. Improving both the diversification and shares of exporter sectors in Konya is of utmost significance.

Chart 29: Sector Concentration Ratio in Konya Exports, 2011



### 6.3.1.3. Concentration in Export and the Herfindahl Index

As sectoral concentration ratios calculated for Konya according to ISIC Rev.3 are based on the cross-section analysis, in other words, as they are in nature of findings only for a particular year (covering 2007, 2009 and 2011 in our analysis), it does not display the trend of concentration in export over the years. With a view to monitoring the trend of concentration in export on both country and sector scale, the Herfindahl index (H-I) has been utilized for the 2002-2011 period:

$H-I = \sum_{i=1}^n P_i^2$ . Where, H-I: denotes the Herfindahl index and  $P_i$  denotes the share of the sector or country.

Accordingly, concentration index calculated for Konya exports by country, and the concentration index calculated by sector are presented in Table 91 and Table 92 respectively.

**Table 91: Concentration of Konya Exports by Country (Herfindahl Index)**

Year	Herfindahl Index (H-I)	H-I (2002:100)
2002	0.0319	100.0
2003	0.0310	97.2
2004	0.0317	99.1
2005	0.0398	124.5
2006	0.0435	136.1
2007	0.0336	105.2
2008	0.0324	101.6
2009	0.0359	112.3
2010	0.0449	140.5
2011	0.0401	125.4

Source: Calculated based upon TSI data

Review of concentration ratios in Konya exports by country, and index values produced based on these ratios reveals that the export concentration index by country tends to rise in 2005, 2006, 2009 and 2010, and that concentration dependence to countries is less during this period. It is observed that, after the first two years following the peak periods of the country concentration index, a dynamic market diversification takes the stage, leading to

decline in the country concentration index. As a matter of fact, a drop is observed in the country concentration index by country during 2003, 2004, 2007, 2009 and the 2011, the crisis recovery period. In other words, even though it is perceived as a risk that the country shares in Konya exports display a progress in favour of limited number of countries in the course of time, it may be argued that the system (provincial export) is capable of undergoing marketplace (country) diversification in every three to four years, and strives to keep away from a risky pattern.

**Table 92: Concentration of Konya Exports by Sector (Herfindahl Index)**

Year	Herfindahl Index (H-I)	H-I (2002:100)
2002	0,149	100.0
2003	0,140	93.7
2004	0,138	92.7
2005	0,152	101.7
2006	0,142	95.1
2007	0,137	92.2
2008	0,140	93.7
2009	0,171	114.6
2010	0,143	96.3
2011	0,142	95.0

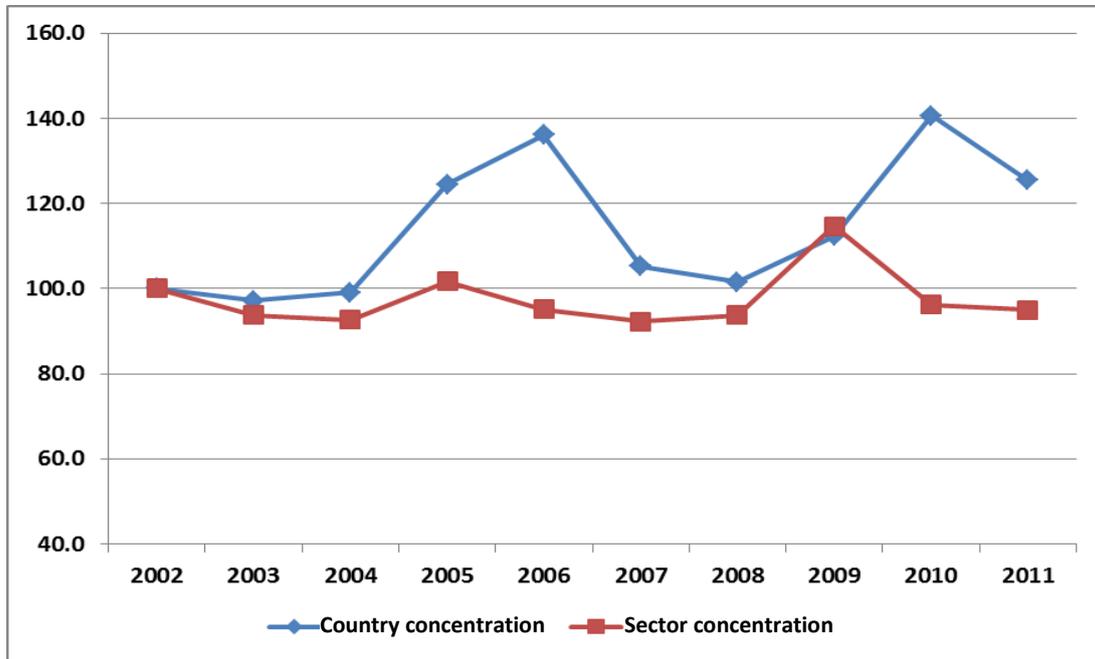
Source: Calculated based upon TSI data

A review of concentration ratios in Konya exports by sector, and of the index values produced based on these ratios reveals that, export concentration index by sector exhibits a decline particularly during the period of recovery. In other words, it is observed that Konya exports has undergone a sectoral diversification in the course of time and displayed a rather sector-based concentration. This situation reflects the fact that the province has relatively a high manoeuvrability during crisis periods, and displays a dynamic approach in sectoral diversification. (Despite the province tends to undergo sectoral diversification, it should not be neglected that few sectors have demonstrated intense concentration in Konya exports).

Review of the chart exhibiting collectively the country and sector concentration according to the H-I index reveals that country concentration displays major rises at particular times whereas number of export countries relatively declines. While the tendency towards product diversification in provincial export is absolutely a positive development, tendency

towards shrinkage of market diversification in export should be regarded as an adverse situation to the same extent.

**Chart 30: Country and Sector Concentration in Konya Exports According to the H-Index (2002=100)**



#### 6.3.1.4. Concentration Coefficient in Export and Addressing Sectors Standing out in Provincial Export

The export concentration or the specialization coefficient, which expresses the ratio of the share of province's sectoral export in total provincial export to the sector's share in overall country export, displays relative superiority of the sector in country export, and can be calculated with the formula below:

##### Provincial Export Concentration Ratio (PECR)

$$PECR = (X_{ij} / X_i) / (X_j / X)$$

$X_{ij}$  : export of sector j in province i,

$X_i$ : total export of province i,

$X_j$ : total export of sector j in Turkey,

$X$ : total export of Turkey

Values above 1 for the entirety of concentration coefficients indicate the relative superiority/advantage of the sector in Konya. Accordingly, it is observed that Food Products

and Beverages Sector (15), Machinery and Equipment Sector Not Classified Elsewhere (29), Motor Road Vehicles and Trailers Sector (34), Metalware Industry (except for Machinery and Equipment) Sector (28), and Non-Metallic Other Mineral Products Sector (26), in order, are specialized and prominent sectors in province's export performance. It may also be argued that, the second set of five sectors with coefficients close to 1 have also significant potential in province's export. These sectors that have a potential in province's export are, in order, Chemicals and Chemical Products (24), Plastic and Rubber Products (25), Base Metal Industry (27), Medical Appliances; Precision and Optical Instruments and Watches (33) and Paper and Paper Products (21) sectors.

**Table 93: Concentration Coefficients of Konya Exports by Sector & Leading Sectors**

ISIC Code	ISIC Rev.3	2007	2009	2011
15	Foodstuffs and beverages	2.7	2.6	3.0
29	Machinery and Equipment Not Classified Elsewhere	3.0	3.6	2.8
34	Motor vehicles and trailers	1.1	1.7	1.4
28	Metalware Industry (excluding Machinery and Equipment)	1.3	1.4	1.2
26	Other non-metallic mineral products	1.2	1.1	1.0
24	Chemical substances and products	1.1	0.9	0.9
25	Plastic and rubber products	1.0	0.7	0.9
27	Base metal industry	1.5	0.3	0.8
33	Medical devices, optic precision instruments and clocks	0.9	0.5	0.7
21	Paper and paper products	0.9	0.9	0.6
36	Furniture and other products n.c.e.	1.0	0.7	0.5
20	Wood and cork products (excluding furniture)	0.5	0.2	0.3
32	Radio, Television, Communication Equipment and Devices	0.1	0.1	0.3
22	Press and media; record, cassette, etc.	0.3	0.1	0.2
19	Leather, leather processing and footwear	0.8	0.2	0.2
17	Textiles	0.2	0.2	0.1
31	Electrical machines and devices n.c.e	0.2	0.2	0.1
30	Office, accounting and IT equipment	0.1	0.2	0.1
35	Other transport vehicles	0.0	0.0	0.1
18	Garments	0.0	0.1	0.0
23	Coke, refined petroleum products and nuclear fuels	0.0	0.0	0.0

Source: Our calculations

To analyse the prominent sectors in provincial export performance of Konya by competitiveness in foreign trade, Revealed Comparative Advantages (RCA) of sectors as calculated for each sub sector of the Manufacturing Industry presented in the study "Analysis of the Turkish Manufacturing Industry"<sup>15</sup> issued by the Economic and Social Researches Directorate in 2012 have been reviewed.

<sup>15</sup> The Analysis of the Turkish Manufacturing Industry (the 2005-2010 period, on the basis of 22 primary sectors), Ed. Mustafa ŞİMŞEK, Turkish Development Bank, Directorate of Economic and Social Researches, 2012, Ankara

According to the RCA scores calculated with a view to determining the competitive strength of sectors in foreign trade, sectors with average score of 50 and above ( $RCA > 50$ ) have been identified as Highly Competitive sectors, sectors with RCA score between -50 and 50 ( $50 > RCA > -50$ ) Marginally Competitive sectors, and sectors with RCA score below -50 ( $-50 > RCA$ ) as Poorly Competitive sectors. In said study, average RCA value of the Manufacturing Industry for the 2005-2010 period has been calculated as 14, positioning the sector within the category "Averagely Competitive Sectors".

The Food Product and Beverage Production sector ranked first among prominent sectors in provincial export has an average RCA value of 102 calculated for the 2005-2010 period, demonstrating a high competitive strength.

The 'machinery and equipment manufacturing not classified elsewhere' sector ranked second has an average RCA value of -24 for the 2005-2010 period, implying a marginal competitive strength for the sector. Furthermore, the sector tends to have a growing competitive strength for the period reviewed.

The motor road vehicle, trailer and semi-trailer manufacturing sector ranked third in provincial export has an average RCA value of 48 for the 2005-2010 period, implying an average competitive strength. The average RCA value of the sector is above the average RCA value of the manufacturing industry (14), and tends to rise for the period.

The metalware industry (except for machinery and machine equipment) has an average RCA value of 83 for the 2005-2010 period, implying a high competitive power for the sector.

Of other prominent sectors standing out in the provincial export performance of Konya, the other non-metallic product manufacturing sector has an average RCA value of 138 for the 2005-2010 period, implying a very high competitive strength.

Of sectors classified as secondary sectors with potential in provincial export, the plastic and rubber products sector has a marginally RCA value of 71 for the 2005-2010 period, positioning the sector among highly competitive sectors, yet the base metal industry has an average RCA value of -16, classifying it among averagely competitive sectors. Of other sectors, paper and paper products sector is poorly competitive with an average RCA value of -70, the chemicals and chemical products sector is poorly competitive with an average RCA value of -125, and medical appliances, precision and optical instruments sector is very poorly competitive with an average RCA value of -189.

Briefly, it is observed that, of five prominent sectors standing out in the export performance of Konya, three are highly competitive, and two are marginally competitive yet tending to improve. And this should be interpreted as a positive indicator for the future export performance of Konya.

### **6.3.2. Sector and Country Concentration in Import**

This chapter is aimed at studying the level of concentration in import performance of Konya on regional and sectoral scale. Concentration values constitute a crucial indicator in foreign trade analyses as they display whether there is a diversification in import on sectoral or country level. In an outward-oriented economy, besides an import-dependent production layout in terms of balance of payments and value added production, the fact that import inputs are dependent to less countries (suppliers) may lead to drawbacks in the process of costing and procurement (particularly in terms of punctuality).

However, if import relies upon product diversification and is dependent to many supplier companies, despite declines in production and increase in costs that may occur in certain countries, input costs of the sector do not drastically increase and also no issue is experienced in the uninterrupted flow of input supply.

In this respect, shedding light on sectoral and country concentrations for Konya is essential for addressing the topics already mentioned.

#### **6.3.2.1. Country Concentration Ratios in Import**

In this sub-chapter, first country concentration ratios in import will be calculated. Before studying concentration ratios for import, it would be helpful to briefly discuss the import composition of Konya on country basis.

Review of the data presented in Table 94 showing the breakdown of import values of Konya by country reveals that China, Russian Federation, Germany, Italy, Taiwan, USA and Ukraine are the most prominent supplier countries. According to the 2011 data, China is ranked first in the overall import volume of Konya with a share of 12.8% followed by Russian Federation (10.7%), Germany (9.2%), Italy (6.6%), Taiwan (4.8%) and USA (4.5%).

**Table 94: Breakdown of Konya Imports by Country (Thousand USD and % Share)**

Country	2005		2007		2009		2011	
	Thousand USD	% Share	Thousand USD	% Share	Thousand USD	% Share	Thousand USD	% Share
China	50,772	11.9	60,888	8.8	61,417	10.5	150,166	12.8
Russian Federation	34,772	8.1	66,021	9.5	102,891	17.6	125,637	10.7
Germany	51,660	12.1	65,582	9.4	62,007	10.6	107,693	9.2
Italy	26,751	6.3	53,019	7.6	32,731	5.6	77,695	6.6
Taiwan	13,977	3.3	26,155	3.8	26,107	4.5	56,348	4.8
USA	10,545	2.5	18,545	2.7	16,124	2.8	52,725	4.5
Ukraine	55,082	12.9	57,017	8.2	23,070	4.0	47,542	4.1
Poland	1,034	0.2	7,944	1.1	10,625	1.8	39,855	3.4
Iran	6,381	1.5	9,832	1.4	2,839	0.5	26,060	2.2
Sweden	4,819	1.1	10,218	1.5	7,522	1.3	25,589	2.2
Belgium	5,049	1.2	13,719	2.0	21,615	3.7	23,778	2.0
France	9,231	2.2	16,057	2.3	8,006	1.4	23,686	2.0
India	5,287	1.2	6,886	1.0	6,790	1.2	23,650	2.0
Saudi Arabia	846	0.2	1,701	0.2	2,996	0.5	23,603	2.0
South Korea	10,402	2.4	25,251	3.6	13,979	2.4	21,840	1.9
Romania	15,812	3.7	24,449	3.5	7,126	1.2	21,654	1.9
Netherlands	6,080	1.4	12,937	1.9	15,266	2.6	20,955	1.8
Spain	6,665	1.6	14,551	2.1	10,192	1.7	20,279	1.7
Qatar	37	0.0	657	0.1	0	0.0	17,962	1.5
Kazakhstan	2,711	0.6	28,287	4.1	7,838	1.3	16,441	1.4
Finland	5,555	1.3	11,193	1.6	1,689	0.3	14,995	1.3
Japan	8,139	1.9	6,567	0.9	9,238	1.6	12,625	1.1
Argentina	781	0.2	162	0.0	677	0.1	12,018	1.0
Indonesia	847	0.2	3,995	0.6	8,497	1.5	11,262	1.0
Brazil	2,219	0.5	1,032	0.1	2,659	0.5	11,078	0.9
Czech Republic	234	0.1	2,616	0.4	2,180	0.4	10,911	0.9
Egypt	1,534	0.4	6,861	1.0	2,683	0.5	10,454	0.9
Australia	7,813	1.8	11,849	1.7	11,520	2.0	9,618	0.8
Thailand	1,648	0.4	6,963	1.0	11,426	2.0	9,051	0.8
Malaysia	972	0.2	2,978	0.4	4,489	0.8	8,831	0.8
Bulgaria	7,164	1.7	19,701	2.8	1,984	0.3	8,170	0.7
United Kingdom	5,433	1.3	5,670	0.8	3,788	0.6	7,703	0.7
Moldova	56	0.0	245	0.0	1,850	0.3	7,486	0.6
Serbia	0	0.0	249	0.0	641	0.1	7,441	0.6
Switzerland	7,712	1.8	2,014	0.3	5,770	1.0	7,185	0.6
Hungary	1,392	0.3	2,788	0.4	4,468	0.8	6,640	0.6
Tajikistan	4,403	1.0	3,668	0.5	1,155	0.2	5,885	0.5
Norway	3,442	0.8	148	0.0	5,847	1.0	5,829	0.5
Other Countries	49,765	11.6	87,211	12.5	63,780	10.8	79,625	6.8
<b>Grand Total</b>	<b>427,021</b>	<b>100.0</b>	<b>695,625</b>	<b>100.0</b>	<b>583,483</b>	<b>100.0</b>	<b>1,170,266</b>	<b>100.0</b>

Source: TSI

Increase in country concentration of import implies that import destinations are limited whereas decrease points to rise supplier alternatives. In this respect, country concentration ratios calculated for Konya imports are shown in Table 95.

**Table 95: Concentration of Konya Imports by Country (2007, 2009, 2011)**

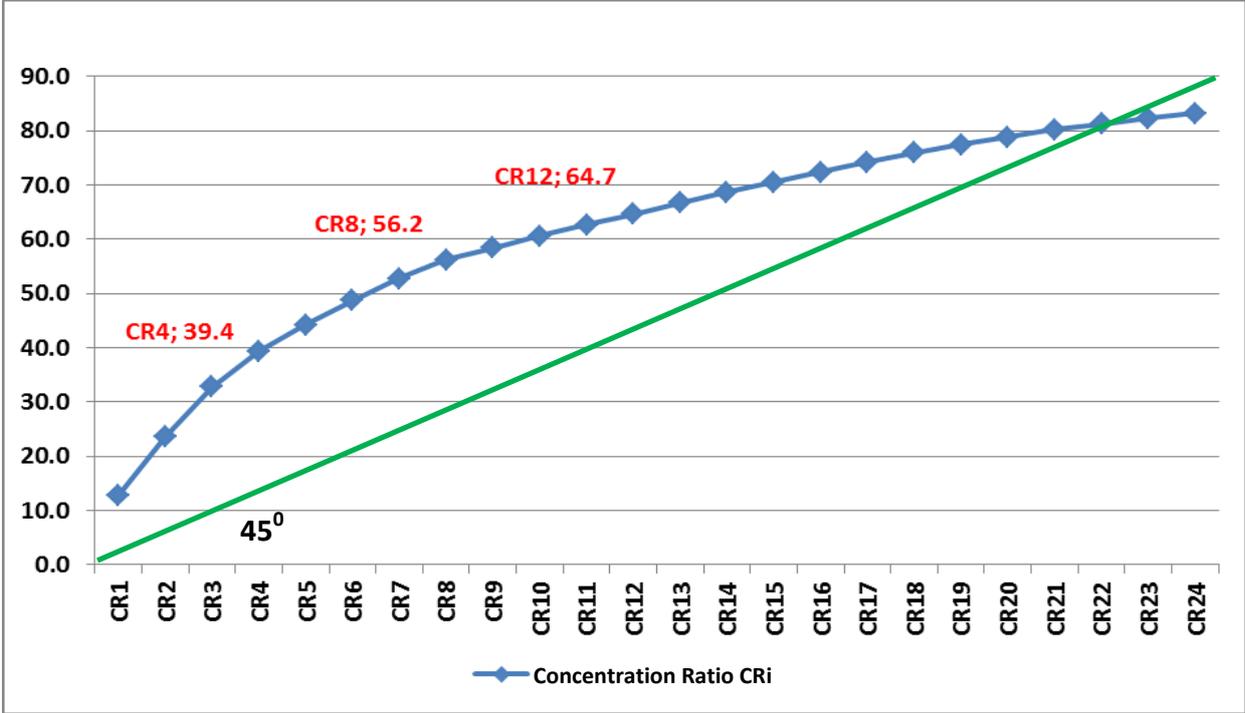
CR <sub>i</sub>	Country	2007		Country	2009		Country	2011	
		% Share	CR <sub>i</sub> Rate %		% Share	CR <sub>i</sub> Rate %		% Share	CR <sub>i</sub> Rate %
CR <sub>1</sub>	Russia	9.5	9.5	Russia	17.6	17.6	China	12.8	12.8
CR <sub>2</sub>	Germany	9.4	18.9	Germany	10.6	28.3	Russia	10.7	23.6
CR <sub>3</sub>	China	8.8	27.7	China	10.5	38.8	Germany	9.2	32.8
<b>CR<sub>4</sub></b>	Ukraine	8.2	<b>35.9</b>	Italy	5.6	<b>44.4</b>	Italy	6.6	<b>39.4</b>
CR <sub>5</sub>	Italy	7.6	43.5	Taiwan	4.5	48.9	Taiwan	4.8	44.2
CR <sub>6</sub>	Kazakhstan	4.1	47.6	Ukraine	4.0	52.8	USA	4.5	48.7
CR <sub>7</sub>	Taiwan	3.8	51.3	Belgium	3.7	56.5	Ukraine	4.1	52.8
<b>CR<sub>8</sub></b>	South Korea	3.6	<b>54.9</b>	USA	2.8	<b>59.3</b>	Poland	3.4	<b>56.2</b>
CR <sub>9</sub>	Romania	3.5	58.5	Netherlands	2.6	61.9	Iran	2.2	58.4
CR <sub>10</sub>	Bulgaria	2.8	61.3	South Korea	2.4	64.3	Sweden	2.2	60.6
CR <sub>11</sub>	USA	2.7	64.0	Australia	2.0	66.3	Belgium	2.0	62.6
CR <sub>12</sub>	Tunus	2.4	66.4	Thailand	2.0	68.2	France	2.0	64.7
CR <sub>13</sub>	France	2.3	68.7	Poland	1.8	70.1	India	2.0	66.7
CR <sub>14</sub>	Spain	2.1	70.8	Spain	1.7	71.8	S. Arabia	2.0	68.7
CR <sub>15</sub>	Croatia	2.0	72.8	Japan	1.6	73.4	South Korea	1.9	70.6
CR <sub>16</sub>	Belgium	2.0	74.8	Portugal	1.6	75.0	Romania	1.9	72.4
CR <sub>17</sub>	Netherlands	1.9	76.6	Indonesia	1.5	76.4	Netherlands	1.8	74.2
CR <sub>18</sub>	Australia	1.7	78.3	France	1.4	77.8	Spain	1.7	75.9
CR <sub>19</sub>	Finland	1.6	79.9	Mozambique	1.4	79.2	Qatar	1.5	77.5
CR <sub>20</sub>	Canada	1.5	81.5	Kazakhstan	1.3	80.5	Kazakhstan	1.4	78.9
CR <sub>21</sub>	Sweden	1.5	82.9	Sweden	1.3	81.8	Finland	1.3	80.2
CR <sub>22</sub>	Iran	1.4	84.4	Romania	1.2	83.0	Japan	1.1	81.2
CR <sub>23</sub>	Poland	1.1	85.5	India	1.2	84.2	Argentina	1.0	82.3
CR <sub>24</sub>	Thailand	1.0	86.5	Norway	1.0	85.2	Indonesia	1.0	83.2
CR <sub>25</sub>	India	1.0	87.5	Switzerland	1.0	86.2	Brazil	0.9	84.2

Source: Our own calculations.

While the CR<sub>4</sub> indicator displaying the total shares of top 4 countries in Konya imports for 2007, 2009 and 2011 realized at 35.9%, 44.4% and 39.4% respectively, the CR<sub>8</sub> indicator displaying the total shares of top 8 countries were found to be 54.9%, 59.3% and 56.2%

respectively. Konya appears to be relatively satisfying country diversification in terms of supply.

Chart 31: Country Concentration Ratio for Konya Imports, 2011



**6.3.2.2. Sector Concentration in Import**

This sub chapter is aimed at revealing sectoral concentration in the import volume of Konya. Before proceeding with sectoral concentration ratios, addressing the sectors having major contribution to the import volume of Konya seems to be essential for a better understanding of sectoral concentration.

***Sectoral Composition of Konya Imports***

The findings of Table 96 showing sectoral breakdown of Konya imports on the basis of ISIC Rev.3 reveal the major sectors as follows: Chemicals and Chemical Products (24), Machinery and Equipment n.c.e. (29), Agriculture and Stock Farming (1), Food Products and Beverages (15), Base Metal Industry (27), Refined Petroleum Products (23), Plastic and Rubber Products (25), Paper and Paper Products (21), Motor Road Vehicles and Trailers (34).

**Table 96: Breakdown of Konya Imports by Sector (Thousand USD and % Share)**

ISIC Rev.3	2005		2007		2009		2011	
	Thousand USD	% Share	Thousand USD	% Share	Thousand USD	% Share	Thousand USD	% Share
<b>A. AGRICULTURE</b>	<b>8,424</b>	<b>2.0</b>	<b>86,856</b>	<b>12.5</b>	<b>98,624</b>	<b>16.9</b>	<b>206,751</b>	<b>17.7</b>
1. Agriculture and Stock Farming	8,377	2.0	86,777	12.5	98,435	16.9	206,454	17.6
2. Silviculture and Logging	45	0.0	79	0.0	189	0.0	286	0.0
5. Fishing	2	0.0	0	0.0	0	0.0	11	0.0
<b>C. MINING</b>	<b>2,470</b>	<b>0.6</b>	<b>1,627</b>	<b>0.2</b>	<b>1,684</b>	<b>0.3</b>	<b>4,841</b>	<b>0.4</b>
10. Pit coal, lignite and peat coal	12	0.0	0	0.0	0	0.0	0	0.0
13. Mineral ores	505	0.1	354	0.1	781	0.1	1,932	0.2
14. Quarrying and other mining operations	1,952	0.5	1,273	0.2	903	0.2	2,909	0.2
<b>D. MANUFACTURING INDUSTRY</b>	<b>408,768</b>	<b>95.7</b>	<b>600,319</b>	<b>86.3</b>	<b>455,280</b>	<b>78.0</b>	<b>949,339</b>	<b>81.1</b>
15. Foodstuffs and beverages	11,277	2.6	19,322	2.8	27,587	4.7	78,110	6.7
17. Textiles	6,924	1.6	10,377	1.5	8,629	1.5	14,828	1.3
18. Garments	0	0.0	467	0.1	278	0.0	1,216	0.1
19. Leather, leather processing and footwear	8,648	2.0	5,490	0.8	3,517	0.6	4,387	0.4
20. Wood and cork products	987	0.2	2,095	0.3	2,309	0.4	13,688	1.2
21. Paper and paper products	22,312	5.2	31,112	4.5	22,997	3.9	39,611	3.4
22. Press and media; record, cassette, etc.	233	0.1	263	0.0	104	0.0	395	0.0
23. Refined petroleum products	9,972	2.3	27,684	4.0	7,248	1.2	48,674	4.2
24. Chemical substances and products	166,875	39.1	213,353	30.7	141,748	24.3	229,706	19.6
25. Plastic and rubber products	14,955	3.5	21,236	3.1	17,182	2.9	41,722	3.6
26. Other non-metallic minerals	9,628	2.3	5,515	0.8	5,223	0.9	9,927	0.8
27. Base metal industry	38,053	8.9	70,494	10.1	73,793	12.6	133,688	11.4
28. Metalware industry	5,305	1.2	8,333	1.2	6,787	1.2	16,610	1.4
29. Machinery and equipment n.e.c	81,663	19.1	136,376	19.6	82,886	14.2	206,829	17.7
30. Office, accounting and IT equipment	419	0.1	328	0.0	326	0.1	701	0.1
31. Electrical machines and devices n.e.c	4,982	1.2	10,404	1.5	18,448	3.2	36,510	3.1
32. Radio, TV, communication equipment and devices	689	0.2	983	0.1	1,238	0.2	1,855	0.2
33. Medical devices, optical precision instruments	8,558	2.0	11,138	1.6	11,993	2.1	17,069	1.5
34. Motor vehicles and trailers	15,192	3.6	20,948	3.0	19,851	3.4	43,001	3.7
35. Other transport vehicles	816	0.2	905	0.1	1,536	0.3	5,270	0.5
36. Furniture and other products n.e.c	1,280	0.3	3,498	0.5	1,599	0.3	5,542	0.5
<b>G. TRADE</b>	<b>7,335</b>	<b>1.7</b>	<b>6,787</b>	<b>1.0</b>	<b>4,670</b>	<b>0.8</b>	<b>8,995</b>	<b>0.8</b>
51. Wastes and scraps	7,335	1.7	6,787	1.0	4,670	0.8	8,995	0.8
<b>OTHER</b>	<b>24</b>	<b>0.0</b>	<b>35</b>	<b>0.0</b>	<b>23,225</b>	<b>4.0</b>	<b>293</b>	<b>0.0</b>
74. Other operations	24	0.0	28	0.0	0	0.0	261	0.0
92. Recreational, cultural and sports activities	0	0.0	6	0.0	19	0.0	32	0.0
99. Confidential data	0	0.0	0	0.0	23,205	4.0	0	0.0
<b>TOTAL</b>	<b>427,021</b>	<b>100.0</b>	<b>695,625</b>	<b>100.0</b>	<b>583,483</b>	<b>100.0</b>	<b>1,170,219</b>	<b>100.0</b>

## Sectoral Concentration in Konya Imports

Sectoral concentration ratios based on ISIC Rev.3 in Konya imports for 2007, 2009 and 2011 are provided in Table 97.

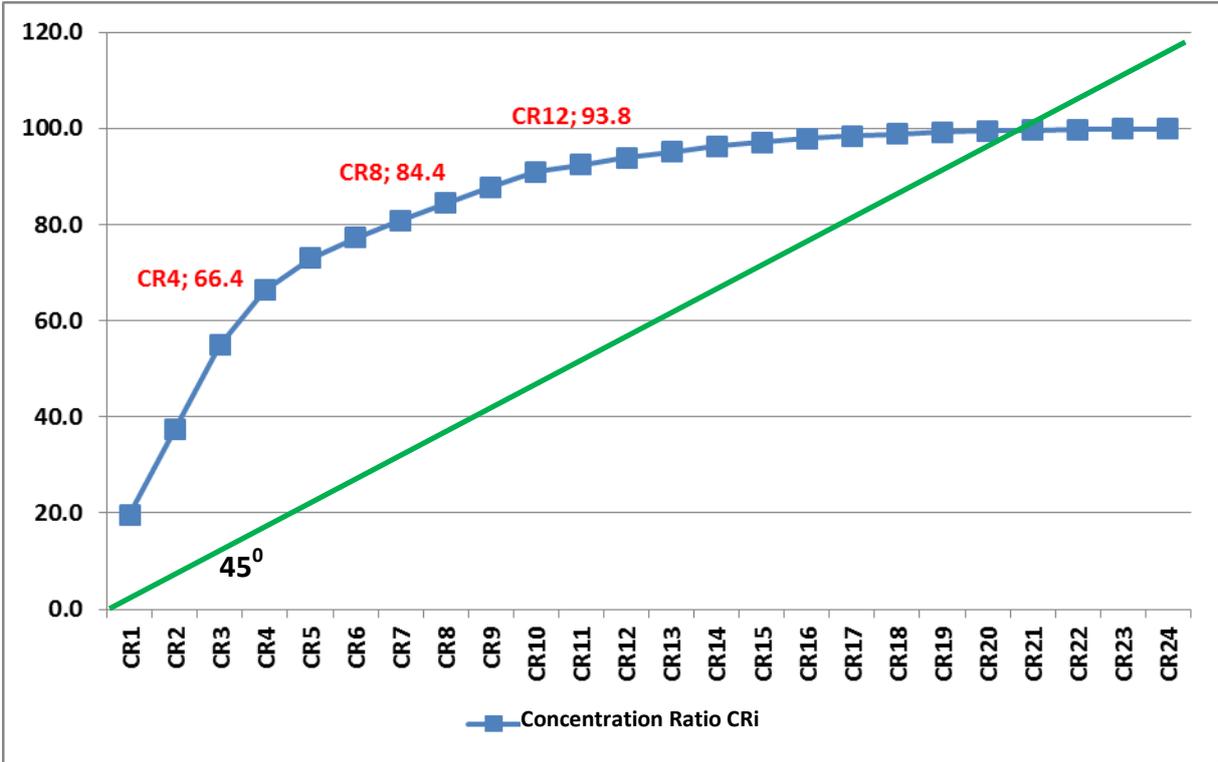
**Table 97: Concentration of Konya Imports by Sector (2007, 2009, 2011)**

CR <sub>i</sub>	Sector	2007		Sector	2009		Sector	2011	
		% Share	CR <sub>i</sub> Rate %		% Share	CR <sub>i</sub> Rate %		% Share	CR <sub>i</sub> Rate %
CR <sub>1</sub>	24. Chemical substances and products	30.7	30.7	24. Chemical substances and products	24.3	24.3	24. Chemical substances and products	19.6	19.6
CR <sub>2</sub>	29. Machinery and equipment n.e.c.	19.6	50.3	1. Agriculture and stock farming	16.9	41.2	29. Machinery and equipment n.e.c.	17.7	37.3
CR <sub>3</sub>	1. Agriculture and stock farming	12.5	62.8	29. Machinery and equipment n.e.c.	14.2	55.4	1. Agriculture and stock farming	17.6	54.9
CR <sub>4</sub>	27. Base Metal Industry	10.1	72.9	27. Base metal industry	12.6	68.0	27. Base metal industry	11.4	66.4
CR <sub>5</sub>	21. Paper and paper products	4.5	77.4	15. Foodstuffs and beverages	4.7	72.7	15. Foodstuffs and beverages	6.7	73.0
CR <sub>6</sub>	23. Refined petroleum products	4.0	81.3	99. Confidential data	4.0	76.7	23. Refined petroleum products	4.2	77.2
CR <sub>7</sub>	25. Plastic and rubber products	3.1	84.4	21. Paper and paper products	3.9	80.7	34. Motor road vehicles and trailers	3.7	80.9
CR <sub>8</sub>	34. Motor road vehicles and trailers	3.0	87.4	34. Motor road vehicles and trailers	3.4	84.1	25. Plastic and rubber products	3.6	84.4
CR <sub>9</sub>	15. Foodstuffs and beverages	2.8	90.2	31. Electrical machines and devices n.e.c.	3.2	87.2	21. Paper and paper products	3.4	87.8
CR <sub>10</sub>	33. Medical devices, optical precision instruments	1.6	91.8	25. Plastic and rubber products	2.9	90.2	31. Electrical machines and devices n.e.c.	3.1	90.9
CR <sub>11</sub>	31. Electrical machines and devices n.e.c.	1.5	93.3	33. Medical devices, optical precision instruments	2.1	92.2	33. Medical devices, optical precision instruments	1.5	92.4
CR <sub>12</sub>	17. Textiles	1.5	94.8	17. Textiles	1.5	93.7	28. Metalware industry	1.4	93.8
CR <sub>13</sub>	28. Metalware industry	1.2	96.0	23. Refined petroleum products	1.2	94.9	17. Textiles	1.3	95.1
CR <sub>14</sub>	51. Wastes and scraps	1.0	96.9	28. Metalware industry	1.2	96.1	20. Wood and cork products	1.2	96.3
CR <sub>15</sub>	26. Other non-metallic mineral products	0.8	97.7	26. Other non-metallic mineral products	0.9	97.0	26. Other non-metallic mineral products	0.8	97.1
CR <sub>16</sub>	19. Leather, leather processing and footwear	0.8	98.5	51. Wastes and scraps	0.8	97.8	51. Wastes and scraps	0.8	97.9
CR <sub>17</sub>	36. Furniture and other products n.c.e.	0.5	99.0	19. Leather, leather processing and footwear	0.6	98.4	36. Furniture and other products n.c.e.	0.5	98.4
CR <sub>18</sub>	20. Wood and cork products	0.3	99.3	20. Wood and cork products	0.4	98.8	35. Other transport vehicles	0.5	98.8
CR <sub>19</sub>	14. Quarrying and other mining operations	0.2	99.5	36. Furniture and other products n.c.e.	0.3	99.1	19. Leather, leather processing and footwear	0.4	99.2
CR <sub>20</sub>	32. Radio, TV, communication equip. and devices	0.1	99.7	35. Other transport vehicles	0.3	99.3	14. Quarrying and other mining operations	0.2	99.4
CR <sub>21</sub>	35. Other transport vehicles	0.1	99.8	32. Radio, TV, communication equip. and devices	0.2	99.6	13. Mineral ores	0.2	99.6
CR <sub>22</sub>	18. Garments	0.1	99.8	14. Quarrying and other mining operations	0.2	99.7	32. Radio, TV, communication equip. and devices	0.2	99.8
CR <sub>23</sub>	13. Mineral ores	0.1	99.9	13. Mineral ores	0.1	99.8	18. Garments	0.1	99.9
CR <sub>24</sub>	30. Office, accounting and IT equipment	0.0	99.9	30. Office, accounting and IT equipment	0.1	99.9	30. Office, accounting and IT equipment	0.1	99.9
CR <sub>25</sub>	22. Press and media; record, cassette etc.	0.0	100.0	18. Garments	0.0	99.9	22. Press and media; record, cassette etc.	0.0	99.9

Source: Our own calculations based on TSI figures.

While the CR<sub>4</sub> indicator displaying the total shares of top 4 sectors in Konya imports for 2007, 2009 and 2011 realized at 72.9%, 68% and 66.4% respectively, the CR<sub>8</sub> indicator displaying the total shares of top 8 sectors were found to be 87.4%, 84.1% and 84.4% respectively. It is observed that sectoral concentration is high in Konya imports. Particularly it is of essence that the top 4 sectors represent major sectors supplying input to prominent sectors of the provincial economy. Due to potential problems in the supply or cost of these inputs, probability of a crisis in prominent sectors of the provincial economy is high.

Chart 32: Sectoral Concentration Ratio for Konya Imports, 2011



**6.3.2.3. Concentration in Import and the Herfindahl Index**

With a view to monitoring the trend of concentration in import on both supplier country and sector scale, the Herfindahl index (H-I) has been utilized for the 2002-2011 period:

Accordingly, concentration index calculated for Konya imports by country, and the concentration index calculated by sector are presented in Table 98 and Table 99 respectively.

**Table 98: Concentration of Konya Imports by Country (Herfindahl Index)**

Year	Herfindahl Index (H-I)	H-I (2002:100)
2002	0.0652	100.0
2003	0.0607	93.2
2004	0.0673	103.3
2005	0.0661	101.5
2006	0.0641	98.4
2007	0.0501	76.8
2008	0.0504	77.3
2009	0.0675	103.7
2010	0.0491	75.3
2011	0.0538	82.5

Source: Calculated based upon TSI data

Review of concentration ratios in Konya imports by country, and of index values produced based on these ratios reveals that the import concentration index by country tends to rise in 2004, 2005 and 2009, and that concentration dependence to countries is relatively less during this period. It may be argued that, diversification increased in provincial imports in terms of supplier and that no problem was experienced in procuring inputs from alternative supplier countries during other years during which the index tended to decline. This situation provides an advantage in minimizing the impact of potential increases in input prices in the international marketplaces.

**Table 99: Concentration of Konya Imports by Sector (Herfindahl Index)**

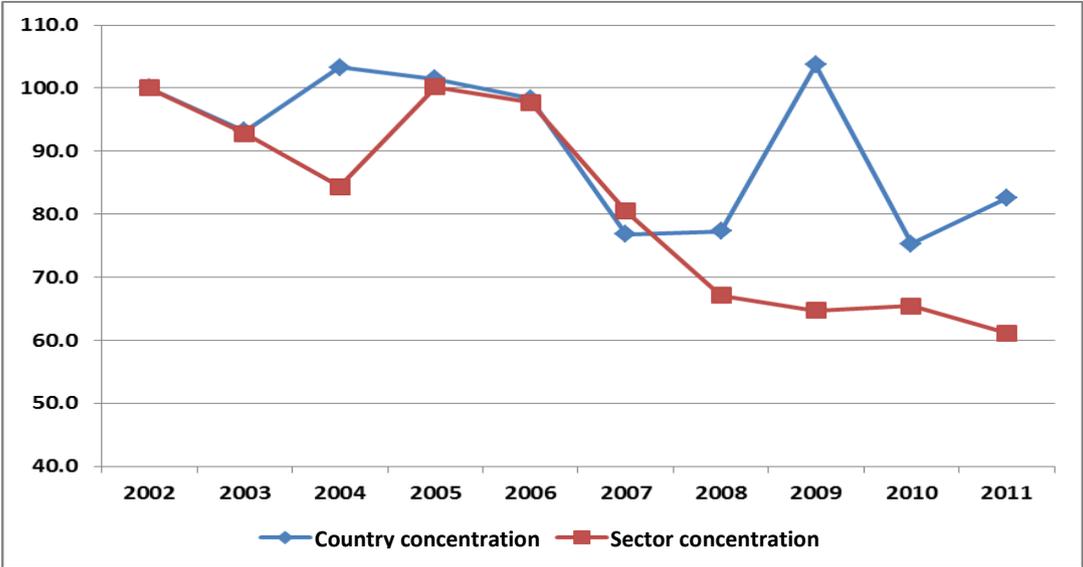
Year	Herfindahl Index (H-I)	H-I (2002:100)
2002	0.2059	100.0
2003	0.1910	92.8
2004	0.1736	84.3
2005	0.2063	100.2
2006	0.2012	97.7
2007	0.1656	80.5
2008	0.1382	67.1
2009	0.1332	64.7
2010	0.1347	65.4
2011	0.1258	61.1

Source: Calculated based upon TSI data

A review of concentration ratios in Konya imports by sector, and of the index values produced based on these ratios reveals that, import concentration index has been in a tendency of decline since 2005. In other words, it is observed that Konya imports underwent a sectoral diversification in the course of time, culminating in dependency to more sectors (despite the tendency of sectoral diversification, it should not be neglected that particularly major sectors supplying input to the prominent sectors of economy in Konya imports have highly concentrated).

The review of the chart collectively demonstrating the tendency of country and sector concentration in imports according to the H-I index reveals that, due to major increases in country concentration at particular terms (2004 and 2009), number of import countries display relative drops, and further that both the supplier country concentration index and the sector concentration index tends to decline. The fact that sector concentration in provincial imports tends to rise may be perceived as a precursor of an incoming boom in provincial economy, and also expansion in the diversity of supplier countries may point to the formation of a input supply climate that would ease the provincial industry.

**Chart 33: Country and Sector Concentration in Konya Imports According to the H-I Index (2002=100)**



#### **6.4. Foreign Trade Potential of Province and Konya's Standing**

The Ministry of Economy conducted a study in 2011, in collaboration with Ricardo Hausmann- Professor at Harvard University, Cesar Hidalgo- Lecturer in MIT, and TEPAV, for addressing export markets complementary with current and potential export products for each province.

The study was carried out under the themes of developing micro maps for each province, general panorama of exports, performance indicators of exports, complementarity and similarity indicators, and strategic road map for the competitive power agenda. According to the indicators for the export performance of provinces, while number of provinces with competitive advantage increases in 55 sectors during 2010 compared to 2000, number of competitive provinces declines in 7 sectors, implying major increases throughout the country in the number of sectors where provinces have competitive power over the last 10 years.

Comparing the competitive powers of provinces in sectors for 2000 and 2010 reveals that a switch has occurred from labour-intensive sectors to capital-intensive sectors throughout the country. For sectors where Turkey has competitive advantage in export, review of the change of those sectors in the product space during 2001 and 2009 reveals that the automotive, machine, electronics and chemicals sectors scored achievements in export.

According to the indicator for the technological breakdown of export, within the classification of provinces with medium- and high-technology product export exceeding 100 million USD as at 2010, Konya is ranked 9<sup>th</sup> with an export performance of 413 million USD. In high- and medium-technology product export in 52 provinces throughout Turkey, an increase was scored in 2010 compared to 2000.

According to the diversification in export criteria, Konya is ranked 4<sup>th</sup> after Istanbul, Izmir and Ankara. Review of the diversification performance of provinces reveals that 76 provinces for which index value has been calculated has a diversification average of 40 for products they competitively manufacture and export.

High mediocrity value of the province according to the mediocrity performance criteria indicates that products manufactured in the province and exported in a competitive aura are mediocre. Konya is ranked 51<sup>th</sup> in the mediocrity classification of provinces. And this

indicates that the province has a low mediocrity. The fact that the province has high export diversification but at the same time low mediocrity reflects that Konya has a favorable standing in terms of export performance.

According to the complementarity and similarity indicators, it is understood that the neighbour provinces have a similar export basket. Accordingly, regional power centres for export may be defined, and this may trigger major breakthroughs for regional development. Provinces having similar performance with Konya in this regard have been identified as Ankara, Eskişehir and Karaman.

Countries with import pattern that mostly match with the export pattern of each province have been identified to reveal the complementary countries of each province. Complementary countries of the provinces are of essence as they represent countries, apart from existing export countries, to which the province may potentially export to. Accordingly, the complementary countries of Konya, in other words the countries which the province may potentially export to or increase its market share in have been identified as Russia, Algeria, Nigeria and Saudi Arabia.

Through strategic road maps for competitive power, qualified bouncing capabilities of provinces have been rated. Qualified bouncing is defined as the province's capability to export more quality products under its current industrial composition. Provinces with wide existing production capabilities would be able to make smoother transition to diversified and more quality export products. Provinces have been classified according to their qualified bouncing capabilities and Konya is ranked 4<sup>th</sup> after Istanbul, Izmir and Ankara among 20 provinces.

It has been specified that the general strategy matrix where the sophistication and qualified bouncing capabilities of the import of provinces ranked at the same level in terms of social-economical development index are compared would shed light on shaping state aids and subsidies to secure routing of production pattern and export baskets to more quality products under an export-oriented production scheme. Accordingly, Turkey has been studied in four different regions.

1. For provinces with high qualified bouncing capability and sophistication, it would be possible to introduce a new scheme incorporating subsidies that may be

characterized as new generation incentives in addition to the aids and subsidies granted so far towards products with high technological level and promising to be the prestigious products of Turkey.

2. For provinces with high export sophistication yet exhibiting bouncing capabilities falling behind the country average, it would be possible to develop state aids for enhancing the competitive strength of sectors resident in these provinces.
3. For provinces with export sophistication falling behind the country average, yet exhibiting a high qualified bouncing capability, incentives ensuring to make production in and export to new sectors will be significant.
4. For provinces with both sophistication and qualified bouncing capability falling behind the country average, developing a multi-functional state aids and incentives mechanism would be fruitful.

Among the foregoing four categories, Konya is classified in the category of provinces with high qualified bouncing capability and sophistication, and is also ranked among provinces set to be supported through new generation investment incentives. As is seen, Konya is ranked high among provinces according to the assessment criteria introduced by the initiative "Foreign Trade Potential on Province Basis", and therefore classified as one of currently developed provinces in terms of production and foreign trade composition compared to the country average, and is also characterized as a province promising potential in terms of development dynamics.

## **7. BANKING**

As at 2011, there are 48 banks active in Turkey. Of them, 31 are deposit banks, 13 are development and investment banks and 4 are participation banks. Of deposit banks, 3 are founded upon public capital, 11 upon private capital and 16 upon foreign capital. There are a total of 9,833 bank branch offices throughout the country.

In Konya, there are 21 active banks and a total of 212 bank branch offices as at March 2012. Of these banks, 3 are deposit banks founded upon public capital, 1 is development and investment bank founded upon public capital, 9 are deposit banks founded upon private capital, and 8 are banks founded upon foreign capital. As at 2010, with a population of

10,489 persons, Konya is ranked 45<sup>th</sup> in the classification of average population per branch office by province. In Turkey, average population per branch office is 7,843 persons. Accordingly, it may be suggested that bank inauguration rate of Konya is low compared to the country average.

Of 212 bank branch offices active in the province, 69 are under deposit banks founded upon public capital, 1 is under development and investment bank founded upon public capital, 108 are under deposit banks founded upon private capital, and 34 are under banks founded in Turkey upon foreign capital. 123 of these branch offices are located in the provincial centre of Konya comprised of the Selçuklu, Karatay and Meram districts, and 89 are located in other districts. It is observed that banking sector is concentrated in the centre where economic activities in the fields of industry, trade, tourism and services are intensive. It is observed that while number of bank branch offices is higher in relatively more developed districts, generally banks founded upon public capital serve along with 1-2 branch offices in other districts. Apart from central districts in Konya that consists of a total of 31 districts, Ereğli hosts 14, Akşehir hosts 10, each of Seydişehir and Ilgın host 8, each of Beyşehir and Cihanbeyli host 7 and Çumra hosts 6 bank branch offices. In bigger districts, greater population size, industrial, agricultural and tourism activity lead to more intensive banking operations. In districts with less population and limited economic activities, an underdeveloped banking sector is a result of low income per capita and consequentially low amounts of savings and loan utilization rates.

### **7.1. Deposits**

As at 2010, total amount of deposits within the banking system in Konya has reached TL 5,928,158 thousand. 1% of total deposits of Turkey is held by Konya, and the province is ranked 10<sup>th</sup> among provinces in deposit classification.

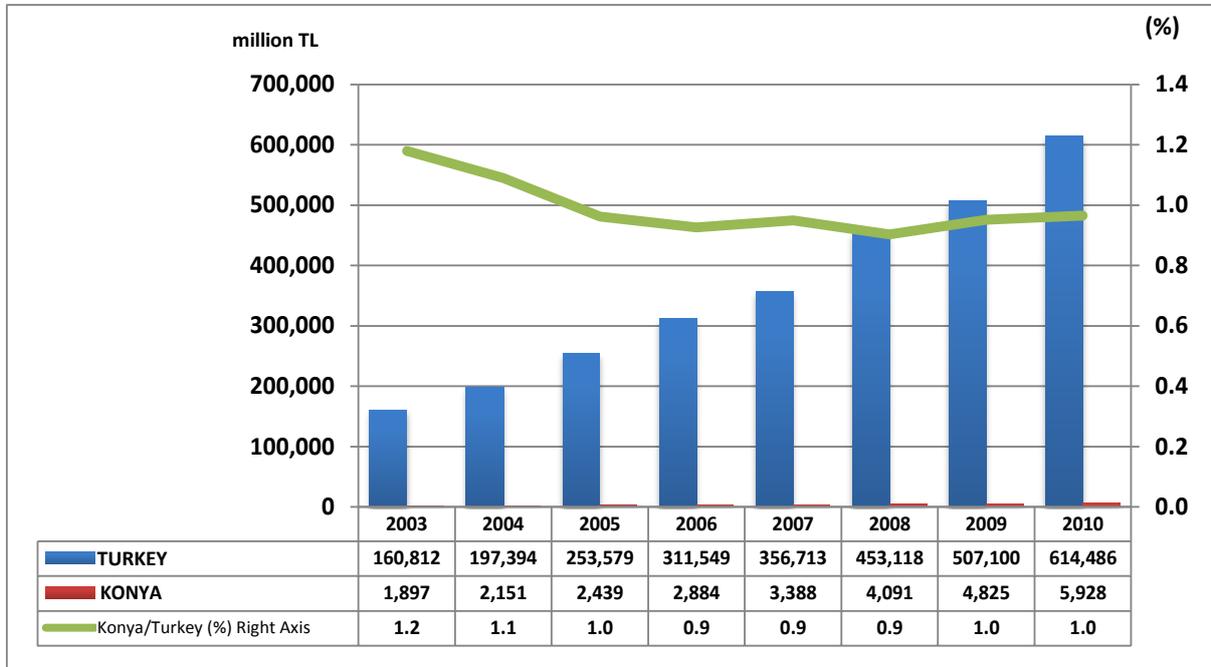
The following table shows the trend of deposits for Turkey, the TR52 Region and Konya over the years.

**Table 100: Trend of Bank Deposits in Turkey, TR52 Region and Konya (Thousand TL)**

Year	TURKEY	TR52	TR52/TURKEY (%)	KONYA	TR52/TURKEY (%)
2003	160,812,250	2,083,225	1.3	1,896,833	1.2
2004	197,393,862	2,387,696	1.2	2,151,096	1.1
2005	253,578,919	2,706,909	1.1	2,438,964	1.0
2006	311,548,674	3,234,581	1.0	2,883,944	0.9
2007	356,712,608	3,798,104	1.1	3,388,282	0.9
2008	453,117,669	4,633,018	1.0	4,091,402	0.9
2009	507,099,960	5,510,718	1.1	4,824,742	1.0
2010	614,486,214	6,705,243	1.1	5,928,158	1.0

Source: The Banks Association of Turkey

**Chart 34: Trend of Bank Deposits in Turkey and Konya**



The breakdown of bank deposits by type as at 2010 is shown in the table below for Turkey, the TR52 Region and Konya.

**Table 101: Breakdown of Bank Deposits by Type (2010, Thousand TL)**

Deposit Type	TURKEY	% Share	TR52	% Share	KONYA	% Share
Savings Deposit	241,873,957	39.4	2,984,456	45.9	2,614,154	44.1
Official Institutions' Deposit	26,092,020	4.2	393,672	7.3	323,639	5.5
Commercial Institutions' Deposit	114,217,792	18.6	1,072,791	11.9	1,021,052	17.2
Interbank Deposits	28,494,527	4.6	73	0.0	55	0.0
Foreign Exchange Deposit Accounts	171,104,828	27.8	2,064,035	32.3	1,797,767	30.3
Other Institutions' Deposit	30,785,821	5.0	154,436	2.2	139,147	2.3
Precious Metals Warehouse Account	1,917,269	0.3	35,780	0.4	32,344	0.5
<b>TOTAL</b>	<b>614,486,214</b>	<b>100.0</b>	<b>6,705,243</b>	<b>100.0</b>	<b>5,928,158</b>	<b>100.0</b>

Source: The Banks Association of Turkey

As at 2010 in Konya, savings deposit of TL 2,614,154 thousand constitutes the major component of total deposits with a share of 44.1%. And the foreign currency disbursement account realized at TL 1,797,767 thousand, representing a share of 30.3% within total deposits. Both savings and foreign disbursement deposits of the province within total deposits outdistance the country average.

Bank deposits per capita in the province amount to TL 2.94 thousand in 2010, considerably falling behind the country average (TL 8.34 thousands). As at 2010, while average deposits per bank branch office in Turkey amount to TL 59,520 thousand, this is TL 30,875 thousand for Konya, ranking the province in the 41<sup>th</sup> place among all provinces. It is observed that savings in Konya are inferiorly channelled to the banking sector compared to the country average.

**Table 102: Bank Deposit Per Capita (2010) (thousand TL)**

	Deposit Per Capita
Turkey	8.34
TR52	2.98
Konya	2.94

Source: Calculated based on the Turkish Association of Banks and TSI data

## 7.2. Bank Loans

As at 2010, a total of TL 506,994,403-thousand bank loans were made available in Turkey. Of this amount, 1.3% was made available to the TR52 Region and 1.2% to Konya. Amount of bank loans made available to Konya as at 2010 is TL 6,199,580 thousand, ranking the province in 10<sup>th</sup> place in the classification of provinces by loan utilization.

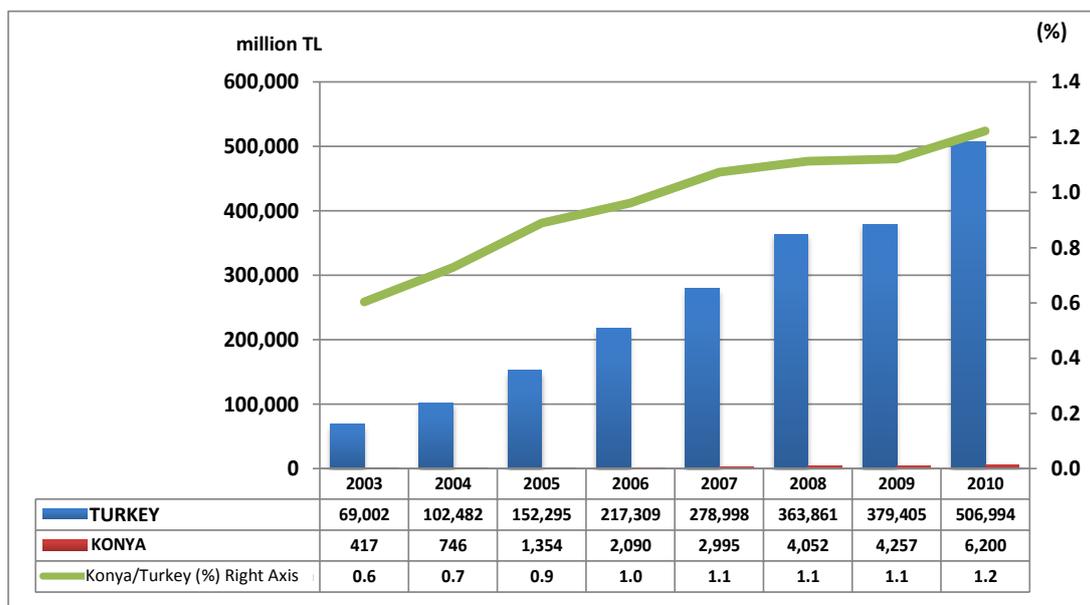
The following table shows the breakdown of bank loans in Turkey, TR52 Region and Konya over the years.

**Table 103: Trend of Bank Loans in Turkey, TR52 Region and Konya (Thousand TL)**

Year	TURKEY	TR52	TR52/TURKEY (%)	KONYA	KONYA/TURKEY (%)
2003	69,002,124	453.378	0.7	416.930	0.6
2004	102,481,789	818.310	0.8	746.191	0.7
2005	152,294,560	1,469,249	1.0	1,354,102	0.9
2006	217,308,644	2,276,611	1.0	2,089,989	1.0
2007	278,997,612	3,262,126	1.2	2,995,211	1.1
2008	363,860,979	4,398,491	1.2	4,051,601	1.1
2009	379,404,761	4,641,227	1.2	4,256,853	1.1
2010	506,994,403	6,775,529	1.3	6,199,580	1.2

Source: The Banks Association of Turkey

**Chart 35: Trend of Bank Loans in Turkey and Konya**



The breakdown of bank loans by type as at 2010 is shown in the table below for Turkey, the TR52 Region and Konya.

**Table 104: Breakdown of Bank Loans by Type (2010, Thousand TL)**

Loan Type	TURKEY	% Share	TR52	% Share	KONYA	% Share
Specialized Loans	33,477,206	6.6	1,066,410	15.7	953.196	15.4
Non-Specialized Loans	473,517,197	93.4	5,709,119	84.3	5,246,384	84.6
<b>TOTAL</b>	<b>506,994,403</b>	<b>100.0</b>	<b>6,775,529</b>	<b>100.0</b>	<b>6,199,580</b>	<b>100.0</b>

Source: The Banks Association of Turkey

While the share of specialized loans within total loans throughout the country as at 2010 is 6.6%, it is 15.4% for Konya.

The agriculture sector holds the biggest share in total specialized loans made available during 2010 in Konya. While loans utilized in the agriculture sector have a share of 12.8% in total loans utilized, this is 1.2% for vocational loans and 1.4% for other loans. As is seen, loan utilization in non-agricultural sectors is quite low.

**Table 105: Breakdown of Bank Loans in Konya (2010)**

Loan Type	Thousand TL	%
Specialized Loans	953.196	15.4
• Agricultural	795.760	12.8
• Vocational	73.588	1.2
• Other	83.848	1.4
Non-Specialized Loans	5,246,384	84.6
<b>Total Bank Loans</b>	<b>6,199,580</b>	<b>100.0</b>

Source: The Banks Association of Turkey

Loan per capita in Konya as at 2010 is TL 3.08 thousand, quite falling behind the country average (TL 6.88 thousands). Average loan amount per bank branch office in Konya is TL 32,289 thousand, ranking the province 35<sup>th</sup> among other provinces. Average loan per bank branch office in Turkey amounts to TL 47,928 thousand.

**Table 106: Bank Loan Per Capita (2010) (thousand TL)**

	Bank Loan Per Capita
Turkey	6.88
TR52	3.02
Konya	3.08

Source: Calculated based on the Turkish Association of Banks and TSI data.

### 7.3. Loan/Deposit Ratio

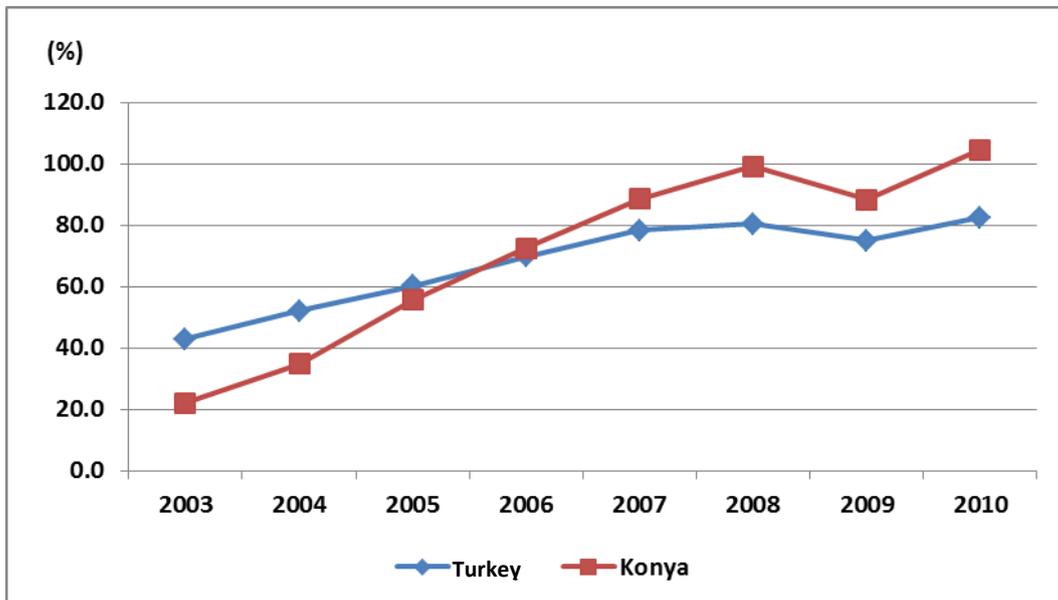
It is observed that while the loan/deposit ratio in overall country within the banking sector was 42.9% in 2003, it climbed up to 82.5% in 2010. It is further observed that, for Konya, while the loan/deposit ratio was as low as 22.0% in 2003, it even outdistanced the country average and realized at 104.6% in 2010. In other words, loans utilized in 2010 exceeded the provincial deposit level.

**Table 107: Loan / Deposit Rate (%)**

Year	TURKEY	TR52	KONYA
2003	42.9	21.8	22.0
2004	51.9	34.3	34.7
2005	60.1	54.3	55.5
2006	69.8	70.4	72.5
2007	78.2	85.9	88.4
2008	80.3	94.9	99.0
2009	74.8	84.2	88.2
2010	82.5	101.0	104.6

Source: The Banks Association of Turkey

**Chart 36: Trend of the Loan/Deposit Ratio**



Assessing the banking sector in Konya particularly from the angle of deposits and loans utilized reveals that the province falls behind respective country averages in terms of deposits per capita and loans utilized per capita, pointing to the fact that tendency to the banking sector in the province in terms of financing and placement is poor. Though consistent rise of the Loan/Deposit ratio over the last years culminating in a recent outreach

of 100 percent is perceived positive, it should be noted that this does not mean the utilization of the province's loan potential, but instead implies the fact that deposits per capita fall behind loans per capita. In Konya, loan facilities offered by the banking sector are not utilized as a primary means of funding in covering either individual or corporate demands to finance.

## 8. INCOME

To analyse the trend of the income level in Konya and further the general standing of the province in comparison to the country, the gross value added and gross value added per capita indicators for Turkey and the TR52 Region covering the 2004-2008 period have been utilized. The gross value added and gross value added per capita data are not published by TSI on provincial scale. However, the review of gross value added data published for 2001 reveals that the TR52 Level 2 Region data are representative of Konya at a rate of 97%, leading to the assumption that data of and analyses for the TR52 Level 2 Region covering the Konya and Karaman provinces would truly represent Konya.

Gross value added for Turkey and the TR52 Level 2 Region is presented comparatively in the table below:

**Table 108: Gross Value Added at Current Prices (Thousand TL)**

Year	Turkey (1)	Growth Rate (%)	TR52 (2)	Growth Rate (%)	Share (2/1) (%)	Rank
2004	494,884,058	-	11,895,953	-	2.40	14
2005	571,714,470	15.52	13,648,959	14.73	2.39	14
2006	668,418,265	16.91	15,503,281	13.58	2.32	14
2007	754,384,542	12.86	17,707,924	14.22	2.35	15
2008	854,585,214	13.28	20,270,377	14.47	2.37	14

Source: TSI

The above table reveals that gross value added being TL 494,884 million in 2004 at current prices throughout Turkey boosted by 72.68% during the 2004-2008 period and climbed up to TL 854,585 million in 2008. For the TR52 Level 2 Region, it is seen that the gross value added being TL 11,896 million in 2004 increased by 70.30% and reached 20,270 million TL in 2008.

The review of the TR52 Level 2 Region's share in overall gross value added produced country wide reveals that, the share being 2.40% in 2004 did not show a significant variation over the

years, suffered a minor decline and dropped to 2.37% in 2008. For the 2004-2008 period, 2.37% of the gross value added of Turkey in average is accounted for by the TR52 Level 2 Region.

In the classification of shares held by 26 Level 2 regions in gross value added of Turkey at current prices, the TR52 Region is ranked 15<sup>th</sup> in 2007, yet 14<sup>th</sup> in 2004, 2005, 2006 and 2008. It is observed that the TR52 region has an average standing among other Level 2 regions in terms of gross value added produced.

Gross value added per capita for Turkey and the TR52 Level 2 region is shown comparatively in the table below:

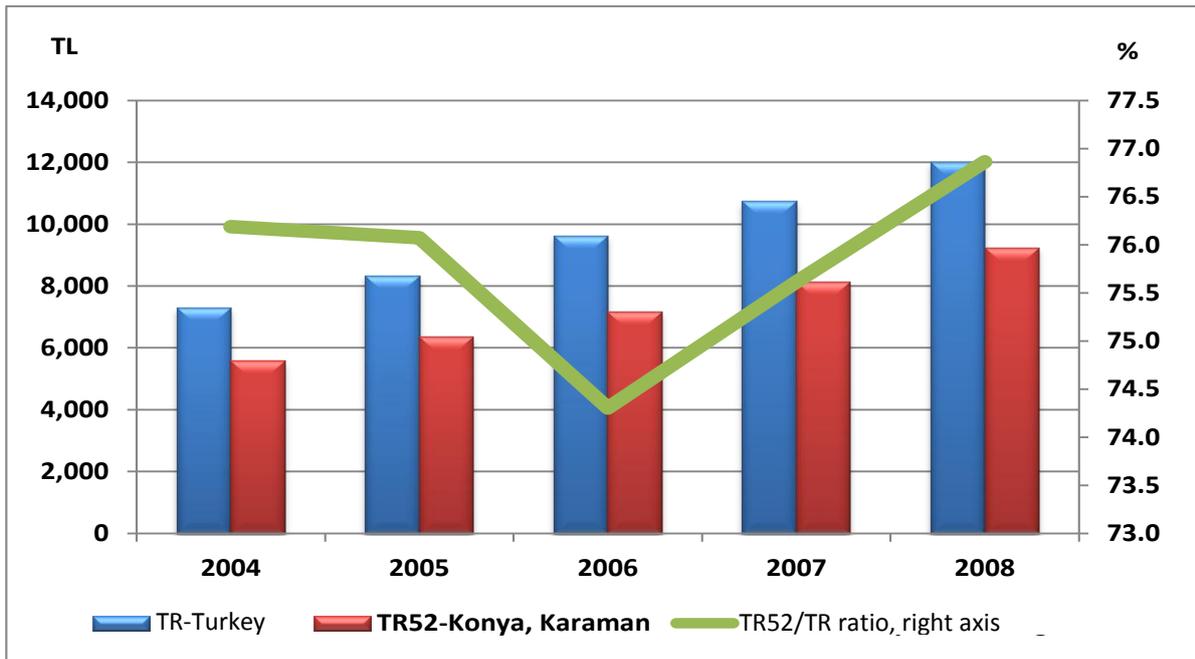
**Table 109: Gross Value Added Per Capita (Current Prices)**

Year	Turkey		TR 52			Turkey		TR52	
	TL	Growth Rate %	TL	Growth Rate %	Rank	USD	Rate %	USD	Growth Rate %
2004	7.307	-	5.567	-	14	5.103	-	3.887	-
2005	8.338	14.11	6.343	13.94	13	6.187	21.24	4.706	21.07
2006	9.632	15.52	7.157	12.83	13	6.686	8.06	4.968	5.56
2007	10.744	11.54	8.124	13.51	13	8.267	23.64	6.251	25.82
2008	12.020	11.88	9.239	13.72	13	9.384	13.51	7.213	15.39

Source: TSI

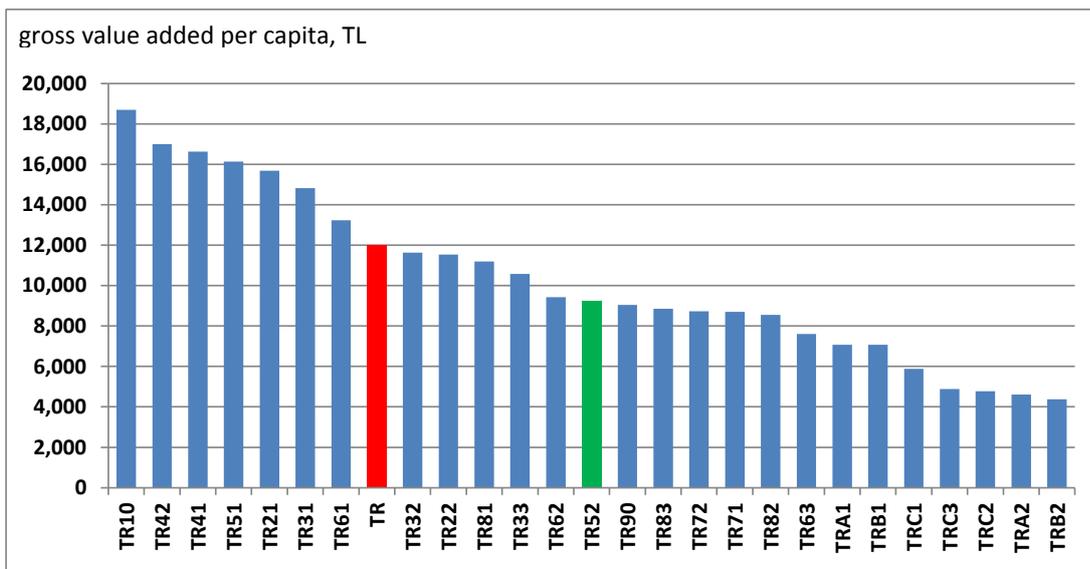
The table reveals that, the gross value added per capita being TL 7,307 for Turkey in 2004 increased by 64.5% during the 2004-2008 period and climbed up to TL 12,020 in 2008. However, it is observed that the gross value added per capita in the TR52 Level 2 Region is below the country average. Gross value added per capita being TL 5,567 for the TR52 Region in 2004 increased by 65.9% during the same period and climbed up to TL 9,239 in 2008. Gross value added per capita for the TR52 Region stands at almost 76% of the country average.

Chart 37: Trend of Gross Value Added Per Capita



The classification of gross value added per capita for the TR52 Level 2 region among 26 Level 2 regions reveals that, the 14<sup>th</sup> rank of the region in 2004 was upgraded to 13<sup>th</sup> in the following years. Associated with the 13<sup>th</sup> rank of the TR52 Region, covering the provinces of Konya and Karaman, in overall country classification, it may be argued that the income level of the region is below the country average and is involved in the average income group.

Chart 38: Value added per capita by Level 2 regions (2008)



On the basis of USD term, it is observed that while the gross value added per capita was USD 5,103 in 2004, it drastically improved to USD 9,384 in 2008 along with an increase of 83.89%.

On the other hand, it is observed that gross value added per capita being USD 3,887 in the TR52 Region in 2004 climbed up to USD 7,213 in 2008 along with an increase of 85.56%.

## **9. SOCIAL-ECONOMIC DEVELOPMENT**

To evaluate the social-economic development of Konya, the classification of provinces in Turkey according to selected indicators has been studied. The following table shows Turkey and Konya data based on selected indicators and further the rank of Konya in the classification of provinces again based on selected indicators.

**Table 110: Turkey and Konya in Certain Figures**

	Turkey	Konya	Rank
<b>GENERAL PARTICULARS (2011)</b>			
Number of Municipalities	2,934	199	1
Number of Districts	957	31	2
Number of Villages	34,425	584	14
<b>POPULATION (2011)</b>			
Total Population	74,724,269	2,038,555	7
Share of Urban Population within Overall Population (%)	76,8	75.0	14
Population Density	97	52	51
Total Age Dependency Ratio (%)	48,4	51.5	35
Annual Population Growth Rate (per thousandth)	13,49	12.20	36
Gender Rate (%) Male/Female	101	98	71
<b>EDUCATIONAL STATUS OF POPULATION (2011)</b>			
Literacy Rate (%) +6 age group	95,1	95.8	22
Literacy Rate (%) +15 age group	94,1	94.9	24
Male Literacy Rate (%) +6 age group	98,3	98.8	21
Male Literacy Rate (%) +15 age group	97,9	98.5	21
Female Literacy Rate (%) +6 age group	91,9	93.0	24
Female Literacy Rate (%) +15 age group	90,3	91.5	26
<b>MIGRATION (2011)</b>			
Net Migration	0	-2.399	47
Net Migration Speed (‰)	0	-1.2	27
Immigrants Exported	2,420,181	54.533	9
Immigrants Imported	2,420,181	52.134	7
<b>EDUCATION (2010-2011)</b>			
Total number of schools	69,684	2.076	5
Gross Schooling Rate (%) - Primary Education Total	107,6	104.0	73
Gross Schooling Rate (%) - Secondary Education Total	93,3	85.8	56
Total number of teachers	774,363	22.520	5
Total number of students	16,845,528	462.797	9
Total number of class branches	622,855	17.778	6
Number of students per teacher (Primary Education/Total)	21	20	21
Number of students per teacher (Secondary Education/Total)	18	17	28
Number of students in university associate license & license programs (New enrolments, 2010)	770,774	19.778	5
Total number of students in post-graduate programs (2010)	3,626,642	68.424	5
Number of graduates from post-graduate programs (2010)	520,614	16.753	4

**Table 110 (Cont'd)**

	<b>Turkey</b>	<b>Konya</b>	<b>Rank</b>
Number of professors in universities (2010)	15.614	499	4
Number of associate professors in universities (2010)	8.486	267	4
Total number of academic instructors in universities (2010)	111.495	3.527	4
<b>DEMOGRAPHICS (2010)</b>			
Crude Marriage Rate (‰ )	8.0	8.5	26
Crude Divorce Rate (‰ )	1.6	1.7	24
Crude Suicide Rate (‰)	4.0	3.0	64
Number of Deaths (2009)	367.971	10.330	5
<b>HEALTH (2010)</b>			
Infant Mortalities (2009)	17.354	664	6
Number of Hospital Beds Per 100.000 People	250	319	13
Number of Hospital Beds	184.050	6.419	4
Number of Specialist Doctors	63.563	1.515	7
<b>CULTURE (2010)</b>			
Number of Public Libraries	1.136	37	5
Number of Seats Per Ten Thousand People	34	16	51
Number of Cinema Halls	1.834	23	16
Number of Theatres	430	2	32
Number of Museums	183	10	2
<b>TRANSPORT</b>			
Number of Private Cars per Thousand People (2011)	109	116	18
Number of Traffic Accidents Per One Million People (2010)	1.584	2.069	24
<b>ENVIRONMENT (2010)</b>			
Daily Water Supply by Municipalities per Capita (l/day)	217	187	64
Average Sulphur Dioxide (SO <sub>2</sub> ) (microgram/m <sup>3</sup> )	-	13	58
Average Particles (PM10) (microgram/m <sup>3</sup> )	-	67	43
<b>LABOUR (%)</b>			
Unemployment Rate (%)	11.9	8.2	57
Contribution to Labour (%)	48.8	50.7	37
Employment Rate (%)	43.0	46.5	31
<b>ENERGY (2010)</b>			
Total Energy Consumption per Capita (kWh)	2.334	2.372	23
Industrial Energy Consumption per Capita (kWh)	1.076	1.180	20
Residential Energy Consumption per Capita (kWh)	562	431	47
Total Energy Consumption (MWh)	172,050,628	4,776,247	9

Table 110 (Cont'd)

	Turkey	Konya	Rank
<b>FOREIGN TRADE (2011)</b>			
Import per Capita (USD)	3.223	574	23
Export per Capita (USD)	1.806	573	28
Export-Import Coverage Ratio (%)	56	100	40
<b>BUSINESS DEMOGRAPHICS (2010)</b>			
Unlimited Companies found	50.943	646	14
Unlimited Companies wound up	29.921	480	19
Companies and CO-operative found	51.970	1.271	6
Companies and Co-operative wound Up	13.442	248	7
Enterprises according to business records	3,003,116	77.970	6
<b>AGRICULTURE (2010)</b>			
Plant Production Value per Capita (TL)	1.086	1.435	35
Livestock Value per Capita (TL)	636	1.131	34
Animal Product Value per Capita (TL)	517	748	36
Total Cultivated Land (Ha)	21,383,237	2,041,157	1
Organic Farming (Production-Tons)	331.361	7.672	12
<b>TOURISM (2010)</b>			
Municipality-Licensed Tourist Facilities	9.185	71	21
Municipality-Licensed Bedding Capacity	527.712	3.240	23
Arrivals to Municipality-Licensed Tourist Facilities	23,499,891	217.936	18
Facilities with Tourism Operation License	2.647	20	18
Bedding Capacity with Tourism Operation License	629.465	3.496	16
Arrivals to Facilities with Tourism Operation License	29,753,966	408.696	11
<b>NATIONAL ACCOUNTS (2001)</b>			
Gross Domestic Product (USD, at Current Prices)	2.146	1.554	43
<b>JUSTICE</b>			
Number of the Condemned Discharged from Penal Institution by Place of Residence Prevailing at the time of the Committal of Crime	72.420	2.032	8
Number of the Condemned Sent to the Penal Institution by the Province of Committal of Crime	74.404	1.636	12
Number of Penal Institutions (2009)	370	7	10
Share of Children Sent to the Security Unit in Overall Children Population (%) (2010)	0.83	1.02	37
Share of Children Charged With a Crime in Overall Children Population (%) (2010)	0.37	0.48	32
<b>BUILDING (2000)</b>			
Housing Units within Municipal Boundaries	16,235,830	469.894	5
Buildings within Municipal Boundaries	7,838,675	333.645	4

Source: Turkish Statistical Institute, Izmir Regional Directorate

The comparison of the overall country with Konya based on selected indicators effected with a view to assessing the social-economic development of Konya reveals that

- ✓ Konya is ranked 1<sup>st</sup> among other provinces in Turkey by the number of municipalities, 2<sup>nd</sup> by the number of districts, and 14<sup>th</sup> by the number of villages. The biggest province of Turkey in terms of surface area, Konya is ranked high in country standings by municipalization. Concentration of population and population growth rate in Konya ranked 14<sup>th</sup> among other provinces in terms of urbanization is below country averages.
- ✓ As to educational status of population, overall literacy rate and the individual literacy rates of women and men appear to be above country averages. In classifications of provinces, the province is ranked 22<sup>th</sup> by overall literacy rate, 21<sup>th</sup> by the literacy rate of men, and 24<sup>th</sup> by the literacy rate of women. Konya is ranked among developed provinces of Turkey in terms of the literacy of population.
- ✓ As to the educational status, Konya appears to be ranked 5<sup>th</sup> by number of total schools, teachers and universities, and 4<sup>th</sup> by the number of higher education graduates, professors, associate professors and total academic instructors at universities. The province is ranked 73<sup>th</sup> and 56<sup>th</sup> by schooling rates in primary education and secondary education respectively, 21<sup>th</sup> and 28<sup>th</sup> in primary education and secondary education respectively by number of students per teachers, and is involved within the category of developed provinces in terms of other educational indicators.
- ✓ Standing as a province losing migrants, Konya is ranked 27<sup>th</sup> among provinces by net migration speed. Off the province, migration is rather towards cities from rural areas.
- ✓ Demographic indicators reveal that Konya is ranked 26<sup>th</sup> among provinces by rough marriage speed, and 24<sup>th</sup> by rough divorce speed. 64<sup>th</sup> rank of the province among other provinces in terms of rough commit-suicide speed is a positive indicator for the province in terms of social-economic status.
- ✓ According to health indicators, Konya is ranked 13<sup>rd</sup> among other provinces by the number of hospital beds, 4<sup>th</sup> by number of hospital beds and 7<sup>th</sup> by the number of specialist physicians per hundred thousand people. According to health indicators, Konya stands among one of the most developed provinces of Turkey.

- ✓ In cultural terms, Konya is ranked 5<sup>th</sup> among other provinces by the number of public libraries, 16<sup>th</sup> by the number of movie houses, 32<sup>th</sup> by the number of theatres and 2<sup>nd</sup> by the number of museums. Based on cultural indicators, it may be argued that Konya has a good level of development.
- ✓ Ranked 18<sup>th</sup> by the number of private cars per thousand people, one of transport indicators, the province is ranked 24<sup>th</sup> by the number of traffic accidents per million people of population.
- ✓ According to the environmental indicators, Konya is ranked 64<sup>th</sup> among provinces by municipal daily water supply per capita, 58<sup>th</sup> by average sulphur oxide, and 43<sup>th</sup> by average particulate substances. Konya, where effective utilization of water is necessary due to limited water resources, is ranked lower by environmental pollution.
- ✓ According to the labour data, Konya is ranked 57<sup>th</sup> among provinces by unemployment rate, 37<sup>th</sup> by labour force activity and 31<sup>th</sup> by employment, displaying a position mildly above the country average.
- ✓ In terms of energy, Konya is ranked 9<sup>th</sup> among provinces by total electricity consumption, 23<sup>th</sup> by electricity consumption per capita, and 20<sup>th</sup> by industrial electricity consumption per capita. Konya may be classified in developed provinces of Turkey by energy consumption.
- ✓ According to the foreign trade indicators, Konya is ranked among 28<sup>th</sup> among provinces by export per capita, 23<sup>th</sup> by import per capita, and 40<sup>th</sup> by export import coverage ratio.
- ✓ According to business demographics, Konya is ranked 14<sup>th</sup> among provinces by the number of unlimited companies founded, 19<sup>th</sup> by the number of unlimited companies wound up, 6<sup>th</sup> by the number of companies and mutual societies founded, 7<sup>th</sup> by the number of companies and mutual societies wound up, and 6<sup>th</sup> by the number of enterprises according to trade data. Hosting intensive trade activities thanks to its geographical situation, Konya stands among most developed provinces of Turkey in trade sector.
- ✓ In terms of agriculture, Konya is ranked 1<sup>st</sup> among provinces by total arable field cultivated, 2<sup>nd</sup> by organic farming, 35<sup>th</sup> by plant production values per capita, 34<sup>th</sup> by

livestock value per capita, and 36<sup>th</sup> by animal product values per capita. Thanks to its land suitable for plant production, Konya stands among prominent provinces of Turkey in the agriculture sector.

- ✓ According to the indicators of the tourism sector, Konya is ranked 18<sup>th</sup> by the number of facilities with tourism operation certificate, 16<sup>th</sup> by bed capacity under tourism operation certificate, and 11<sup>th</sup> by number of arrivals to facilities with tourism operation certificate. In Konya where the Mevlana Museum is the centre of attraction in tourist activities, high-quality tourism offer and demand is concentrated in the city centre. In terms of tourism, there is a development difference between the city centre and other areas.
- ✓ In terms of national accounts, Konya is ranked 43<sup>th</sup> among provinces by GDP per capita as at 2001.
- ✓ As to justice, Konya is ranked 8<sup>th</sup> by the number of the condemned discharged from the penal institution according to the residence at the time of committing the crime, 12<sup>th</sup> by the number of the condemned sent to the penal institution according to the province where the crime was committed, and 10<sup>th</sup> by the number of penal institutions. Ratio of children charged with a crime in the overall child population is above the country average. By this indicator, Konya is ranked 32<sup>nd</sup> among the provinces.

As a consequence, it is observed that, an assessment across socio-economical indicators reveals that Konya is above the country average by many of the indicators, and that it is ranked high in this respect compared to other provinces of the country. In terms of social-economic development status, Konya is involved among developed provinces of Turkey and has also further development potential. According to the New Incentives System proclaimed in April 2012, Turkey has been divided into 6 regions by social-economic development. In this New Incentives System, Konya is ranked the 2<sup>nd</sup>, in other words the province is among developed provinces of 2<sup>nd</sup>-degree in terms of social-economic development.

## **10. KONYA BY HUMAN DEVELOPMENT INDEX (HDI)**

The Human Development Index (HDI) developed by the UN Development Scheme (UNDP) is a collective index based on three separate indicators. Life expectancy measured through the life expectancy at birth, literacy rate in adults (predominantly two thirds), educational level as measured through the combination of collective primary, secondary and higher school records (predominantly one third), and life standards measured through gross domestic product per capita.

The HDI employed by United Nations in international classifications is being utilized for some time to indicate the development ranking of provinces in Turkey. Therefore, the results of this study have been utilized to identify the development level of Konya as well as its rank in the overall country classification. The results of the Human Development Index study conducted based on 2004 results for Turkey are presented as follows:

In the Human Development Report issued by UNDP in 2004, the HDI data both on the overall country as well as the regional scale are not presented, and the Human Development Index published in the report compare the relative level of human development for 81 provinces of the country.

However, within the scope of this study, based on HDI data presented on province basis, the weight of provinces within regional population have been considered, the HDI data have been calculated also for the Level 2 regions, and regional comparisons have been made. Therefore, in this study, it will be endeavoured to present HDI data on regional scale besides HDI data for provinces to highlight the relative strengths of provinces and regions in the classification.

A review of the 2004 Human Development Report reveals that, primarily Kocaeli followed by Yalova, Istanbul, Bursa, Izmir, Muğla, Sakarya, Bolu and Tekirdağ are involved in the upper human development category, and that Ankara standing as one of the most prominent provinces of the Central Anatolian Region and Turkey is ranked second in the intermediate human development category and 11<sup>th</sup> in the country standing with an index value of 0.792 . There are 72 provinces involved in the intermediate human development category. Konya and Karaman, provinces of the TR52 Level 2 Region, are involved in this category. In terms of the human development index, there is no province classified in the lower human

development category. According to the 2004 Human Development Report data, Konya has an index value of 0.738, representing a rank of 33 among other provinces in Turkey. With an index value of 0.712, Karaman is ranked 44<sup>th</sup> among the provinces of the country.

**Table 111: Human Development Index for the TR52 Region (2004)**

	Life Expectancy Index	Education Index	Income Index	Gender-Based Index	HDI	Rank of Provinces
<b>Provinces of TR52 Region</b>						
Konya	0,727	0,836	0,650	0,719	0,738	33
Karaman	0,593	0,856	0,687	0,711	0,712	44

Source: Human Development Report, 2004, UNDP

For Konya, identified life expectancy index is 0.727, education index is 0.836 and income index is 0.650. Review of HDI data by gender reveals that Konya has rank of 33 in Turkey with an index value of 0.719, and Karaman is ranked 41<sup>th</sup> with an index value of 0.711.

**Table 112: Human Development Index by LEVEL 2 Regions**

Level 2 Sub-Regions	Life Expectancy Index	Education Index	GDP Index	Human Development Index HDE Value	Real GDP Per Capita Ranking - HDE Value
TR10- Istanbul	0,791	0,956	0,763	0,837	1
TR42- Kocaeli	0,798	0,927	0,770	0,832	-1
TR31- İzmir	0,787	0,940	0,759	0,829	0
TR41- Bursa	0,798	0,930	0,723	0,817	2
TR32- Aydın	0,787	0,885	0,710	0,794	3
TR51- Ankara	0,698	0,926	0,752	0,792	-2
TR22- Balıkesir	0,768	0,901	0,698	0,789	2
TR21- Tekirdağ	0,686	0,934	0,733	0,784	-3
TR61- Antalya	0,743	0,888	0,681	0,770	2
TR62- Adana	0,674	0,874	0,714	0,754	-3
TR81- Zonguldak	0,689	0,885	0,687	0,754	-1
TR33- Manisa	0,737	0,847	0,663	0,749	0
TR52- Konya	0,714	0,838	0,654	0,735	1
TR83- Samsun	0,690	0,837	0,640	0,722	1
TRC1- Gaziantep	0,715	0,816	0,613	0,715	4
TR72- Kayseri	0,687	0,838	0,613	0,713	5
TR63- Hatay	0,659	0,839	0,637	0,712	-1
TR71- Kırıkkale	0,628	0,838	0,656	0,707	-5
TR90- Trabzon	0,684	0,808	0,614	0,702	1
TR82- Kastamonu	0,651	0,807	0,630	0,696	-3
TRB1- Malatya	0,647	0,799	0,617	0,687	-3
TRA1- Erzurum	0,617	0,788	0,578	0,661	1
TRC2- Şanlıurfa	0,683	0,665	0,580	0,643	-1
TRC3- Mardin	0,639	0,685	0,546	0,623	0
TRA2- Ağrı	0,589	0,731	0,511	0,611	0
TRB2- Van	0,619	0,665	0,509	0,598	0

**Note:** In the calculations of HDI values on regional scale, the UNDP 2004 Human Development Report for Turkey data have been utilized, and the weights of provinces in regional population have been considered.

Review of regional HDI values calculated by Türkiye Kalkınma Bankası A.Ş., the Economic and Social Researches Directorate, based on HDI data for provinces reveals that the highest HDI value is held by the Istanbul region followed by sub regions of Kocaeli and Izmit. The TR52 Level 2 Region is ranked 13<sup>th</sup> with a HDI value of 0.735. While the TR52 Region is ranked 14<sup>th</sup> among Level 2 regions by GDP index and education index, it is ranked 10<sup>th</sup> by the life expectancy index.

As a conclusion, while the TR52 Region is ranked 13<sup>th</sup> in statistical regional classification on Level 2 basis in the socioeconomic development standing, an indicator employed in measuring the development level, Konya is ranked 33<sup>th</sup> and Karaman is ranked 44<sup>th</sup> by the

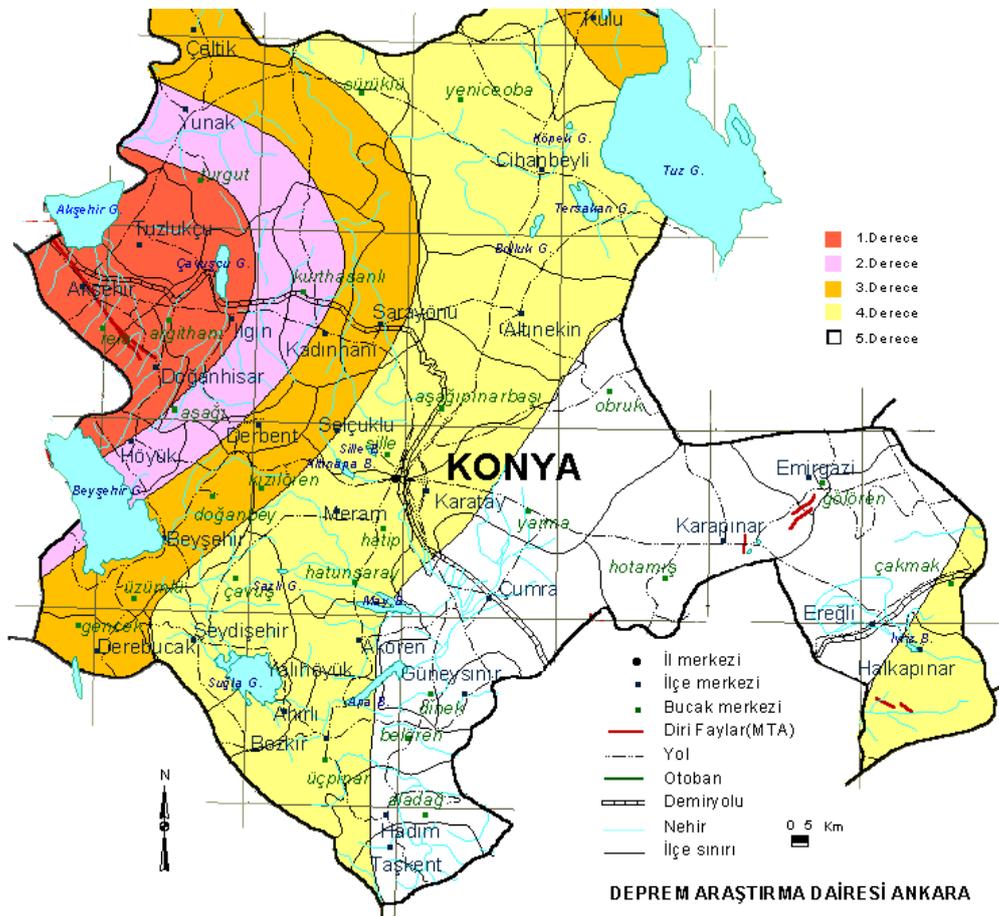
same indicator. Konya is classified in the averagely developed provinces of Turkey by the human development index.

## II. ANALYSIS OF THE INVESTMENT CLIMATE

### 1. Analysis of the Geographical Situation

- ✓ Located within the Central Anatolian Region, Konya is neighboured by Ankara, Isparta, Afyonkarahisar, Eskişehir, İçel, Karaman, Antalya, Niğde and Aksaray provinces. Extending on a very vast land of 38,257 km<sup>2</sup>, Konya occupies almost 5% of the overall country territory.
- ✓ Majority of the lands in the province characterized as a high plateaus is in nature of a closed basin. The Konya closed basin formed through the merger of myriad of lakes and marshlands does not display major valley formations. Upon alluvial deposit bedding in valley bases formed by minor streams in the course of time, arable wide plains have formed. In Konya where predominantly the terrestrial climate prevails, summer is hot and arid, and winter is cold and rainy. In the province where precipitation is very low, farming and stockbreeding is adversely impacted by climatic conditions.

Map 11 Seismic Map of Konya



- ✓ Due to its geographical situation, Konya is located on routes linking the Mediterranean Region to Central Anatolia, and the Aegean Region to the East and South East. Thanks to its proximity to developed provinces including Ankara, Adana, Kayseri, Mersin and Antalya, the province has an attractive location for business location factors.
- ✓ Konya is one of rare provinces of the country under seismic risk. Majority of provincial lands fall in the 5th degree representing lowest seismic risk, and 4th degree representing low risk. According to the seismic map, the provincial centre of Konya falls in the fourth seismic belt. It is observed that provincial territory of Konya is distributed over the 1st, 2nd, 3rd, 4th and 5th-degree seismic belts. The line with 1st-degree seismic risk accommodating the Tuzlukçu, Doğanhisar, Akşehir and Iğın districts represents a minor portion of the overall provincial territory.

Source: Department of Seismic Surveys.

## **2. Demographics Analysis**

- ✓ According to the results of the 2011 Address-Based Population Registration System (ABPRS), Konya has a population of 2,038,555 persons, of which 75% live in cities, and 25% in rural areas. Furthermore, majority of the city population (70.3%) is concentrated in Karatay, Meram and Selçuklu districts, constituting the central provincial district. Standing as a province clearly losing migrants, Konya has an annual population growth rate of 12.20‰, falling behind the country average of 13.49‰.
- ✓ The province has an unemployment rate of 8.2% as at 2010, falling behind the country average of 8.4%, and an employment rate of 46.5%, exceeding the country average of 43%. In the breakdown of employment by sector, Konya and Karaman are ranked first in services sector with a share of 40.3%, second in agriculture sector with a share of 35.2%, and third in industrial sector with a share of 24.6%.
- ✓ In Konya hosting intensive agricultural activities thanks to its suitable land structure, the industrial sector is also developed, constituting an advantage for employment. In socioeconomic terms, the province has a trend outperforming the country average according to the social security criteria, and no issue in labour procurement is experienced particularly for the industrial sector. Konya stands as one of the

prosperous provinces in the procurement of qualified/non-qualified taskforce thanks to both the qualification of population and the high educational level. In particular, with the growing nature of the city as a university town over the last years, Konya has gained a position growing up taskforce for the whole country.

### **3. Analysis of Facilities of Infrastructure**

- ✓ Konya is ranked among developed provinces of Turkey in terms of both technical infrastructure and social infrastructure.
- ✓ Konya stands as a major centre ensuring transport between northern and southern provinces, as well as eastern and western provinces, and offers means of highway, railway and airway transport. The province is equipped with a total highway network of 10,282 km. Of this, 1,421 km is state highway, 1,631 km is provincial highway and 7,230 km is rural highway. The Konya-Ankara highway project, Konya-Karaman highway project, Konya-Akşehir-Afyon provincial boundary highway project, the Konya-Ereğli Ulukışla secondary road project, the Konya-Akşehir highway project, the Konya-Seydişehir and the Konya-Beyşehir dual carriageway projects initiated by the General Directorate of State Highways are in progress. Once these highways currently under construction are completed, transport to other cities will be faster and safer. Particularly the completion of the Ankara-Pozantı Highway will greatly ease accessibility to Şanlıurfa, Diyarbakır, Ankara and Istanbul from the region.
- ✓ Besides highway transport, the province has also means of railway transport. The length of the railway network between provincial boundaries is 590 km as at 2010. Railway transport from Konya is provided by means of High-Speed Train Line (Konya-Ankara), the Taurus Express Train Line (Istanbul-Konya-Gaziantep), the Central Anatolian Blue Train Line (Ereğli-Konya-Istanbul) and the Meram Express Train Line (Istanbul-Konya).
- ✓ Konya has been involved within the scope of the logistic centres project implemented by the Turkish Republic of State Highways. In this project, the Kayacık town of the province has been structured as a logistics centre. Of the logistic centres where warehousing and transport services offering a combination of highway, railway, seaway and airway access, when necessary, and combined means of transport, the Konya-Kayacık Logistic Centre was started to be constructed by virtue of the Cabinet Decision published in the

Official Gazette no 27946 of 27.05.2011. With the inauguration of the Konya-Kayacık Logistic Centre, current load and warehousing centres in the city will be moved to the uptown, and integrated and sophisticated transport and warehousing facilities will be built in the logistics centre. Within the scope of the Kayacık Logistic Centre, efforts for the expropriation of the area of 700,000 m<sup>2</sup> are in progress, and once the investment is complete, great economic and commercial advantages will be brought in Konya. On the other hand, professional initiatives have been initiated through the efforts of the Ministry of Economy to transform Mersin into a logistic centre. Konya has no railway link to Mersin. Linking the Kayacık Logistic Centre to the International Logistic Centre of Mersin will cure a major shortcoming in infrastructure.

- ✓ There is a military-civil airport in Konya. A gateway to international traffic as a border crossing, the airport is 20 km far from the city centre. With growing number of passengers and augmenting demand, the airport that was put into service as a military-civil airport on 29.10.2000 offers daily scheduled air flights on the Konya-Istanbul-Konya route.
- ✓ There are 13 power plants in Konya. Of them 4 are hydro-electrical power plants and 9 are thermal power plants. 12 of these power plants are currently in operation. Of them, 4 are electricity generation corporations and 8 are autoproducer plants. The Çumra Thermal Power Plant is at the investment phase, and will be in operation as an autoproducer. With its high volume of smooth, even and non-arable land capacity, the province stands as a major destination for investments of power generation from solar energy, a renewable alternative energy source. Particularly the Karapınar region of Konya hosts vast and non-arable lands. Collective review of criteria having impact on the choice of region for solar energy investments reveals that the Karapınar district is described as one of the regions of Turkey with highest investment potential. Furthermore, Konya also has a potential for wind power, one of the alternative renewable energy sources. Provincial regions available for wind power potential have been designated as the provincial centre, Seydişehir, Derebucak, Taşkent and Akşehir districts.

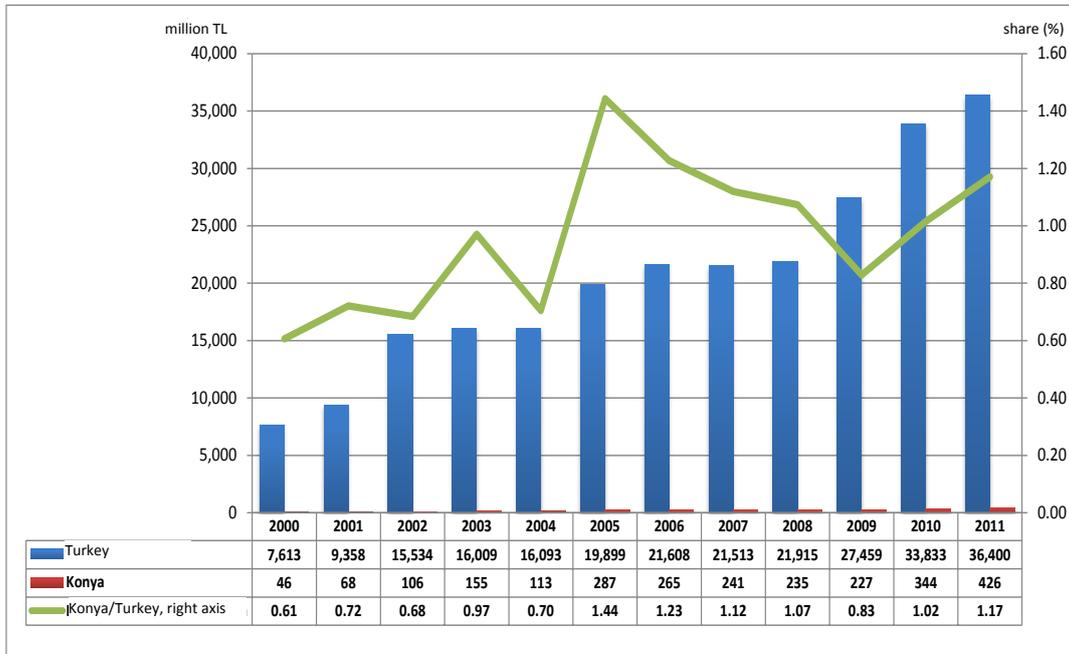
- ✓ As to educational status of the province, the province has a literacy rate of 94.05%, outperforming the country average of 92.31%. While Konya has a better standing compared to the country average in terms of primary education, the province displays a lower performance than the country average towards higher educational organizations. In the province, the rate of literacy is higher for men than women in each educational level. While the province has a schooling rate of 98.75% in primary education, outperforming the country average (98.67%), schooling rate in secondary education is 64.25%, falling below the country average (67.37%). There are a total of four universities in the province. Of them, two are state universities and two are foundation universities. As a university city, the province has turned out to be a major academic source growing up qualified taskforce for Turkey and Konya.
- ✓ Displaying a relatively good standing in healthcare compared to the country average, Konya has 23 public hospitals, 10 private hospitals, and 4 university hospitals, making up a total of 37 hospitals. Konya accounts for 2.6% of total healthcare professionals and 2.5% of total physicians in Turkey. Number of hospital beds per hundred thousand people in Konya is 319, outdistancing the country average of 250. This indicates that, Konya has a better standing compared to the country average in terms of healthcare service.
- ✓ **Public investments** constitute the major factor in removing shortcomings in the infrastructure of a region. The breakdown of public investments, which may be considered as a significant indicator in this respect, is presented in the following table by Turkey, the TR52 Level 2 Region and Konya. The table reveals that public investments country wide increased by 378 folds at current prices compared to the year 2000 and reached 36,400 million TL in 2011, and that public investments for Konya increased by 824 folds and reached 426 million TL in 2011. While Konya represents 0.61% of total public investments in 2000, this has climbed up to 1.17% in 2011. Konya is ranked 10<sup>th</sup> in the classification of public investments by province as at 2011. It is observed that Konya's share in public investments is consistently growing, and it may be argued that this is a major advantage for the province's economy.

**Table 113: Public Investment Allowances (at Current Prices, Thousand TL)**

Year	Turkey	TR52	TR52/Turkey(%)	Konya	Konya/Turkey (%)
2000	7,612,580	50.072	0.66	46,124	0.61
2001	9,358,212	77.214	0.83	67,505	0.72
2002	15,533,564	123.258	0.79	106,328	0.68
2003	16,009,223	272.588	1.70	155,449	0.97
2004	16,093,343	176.703	1.10	113,351	0.70
2005	19,899,447	603.330	3.03	287,265	1.44
2006	21,608,226	579.322	2.68	265,242	1.23
2007	21,513,108	525.479	2.44	240,895	1.12
2008	21,915,452	474.127	2.16	235,335	1.07
2009	27,458,727	491.269	1.79	227,484	0.83
2010	33,832,966	659.259	1.95	343,518	1.02
2011	36,400,287	547.254	1.50	426,031	1.17

Source: Ministry of Development, the Investment Scheme for the Year 2011, the Breakdown of Public Investments by Province, July 2011.

**Chart 39: The Trend of Public Investments**



- ✓ The breakdown of public investment expenditures by sector reveals that, the transport/communication sector receives the highest amount of investment throughout Turkey (29.6%), and that the agriculture sector receives the highest public investment expenditure in Konya with a share of 48.6%. Other sectors with biggest shares in public investment expenditures made in Konya are training (16.9%), others 11.2, health (9.2%), transport/communication (6.6%) and energy sector (4.7%). While it is observed that mining sector, manufacturing industry and housing sector have minor shares in provincial public investment expenditures, the tourism sector seems to be have no

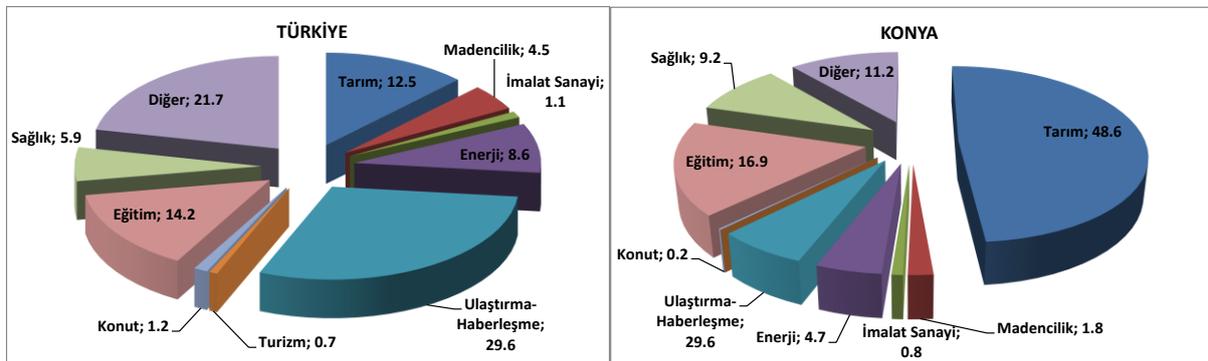
share in this field. The breakdown of public expenditures by sector for Turkey, TR52 Level 2 Region and Konya during 2011 is presented in the table below:

**Table 114: Breakdown of Public Investment Expenditures by Sector (2011) (thousand TL)**

Sector	Turkey	Share (%)	TR52	Share (%)	Konya	Share (%)
Agricultural	4,553,857	12.5	225.580	41.2	207,039	48.6
Mining	1,645,680	4.5	8.856	1.6	7,507	1.8
Manufacturing Industry	400.460	1.1	3.362	0.6	3,362	0.8
Energy	3,133,027	8.6	71.537	13.1	20,183	4.7
Transport/Communication	10,782,483	29.6	29.425	5.4	27,952	6.6
Tourism	256.357	0.7	-	-	-	-
Housing	408.376	1.2	1.000	0.2	1,000	0.2
Education	5,161,277	14.2	103.008	18.8	72,140	16.9
Healthcare Services	2,162,564	5.9	41.600	7.6	39,000	9.2
Other	7,896,206	21.7	62.886	11.5	47,848	11.2
<b>Total</b>	<b>36,400,287</b>	<b>100.0</b>	<b>547.254</b>	<b>100.0</b>	<b>426,031</b>	<b>100.0</b>

Source: Ministry of Development, the Investment Scheme for the Year 2011, the Breakdown of Public Investments by Province, July 2011.

**Chart 40: Breakdown of Public Investments by Sector (2011, %)**



TÜRKİYE: Turkey, Tarım: Agriculture, Madencilik: Mining, İmalat Sanayi: Manufacturing Industry, Enerji: Energy, Ulaştırma-Haberleşme: Transport-Communication, Turizm: Tourism, Konut: Housing, Eğitim: Training, Sağlık: Health, Diğer: Other

#### 4. Tourism Analysis

#### 4. Tourism Analysis

As a residential area that has hosted historical civilizations to date, Konya is in nature of an outdoor museum with its historical artworks and artefacts. Besides its enriched historical and cultural heritage, the province is also dressed with a potential in terms of lake tourism, thermal tourism and nature tourism. However, it

is observed that such potential is not sufficiently utilized, and we are of the opinion that designing and supporting the tourism industry on a rather coastal tourism-oriented approach is the major cause.

There are a total of 24 hotels equipped with tourism operation license. Of them, 17 are located at the provincial centre and the remaining 7 are at Akşehir, Seydişehir, Beyşehir, Ilgın and Ereğli districts. The entirety of five-star and four-star hotels are hosted by Selçuklu and Karatay districts that are located at the provincial centre. Total number of rooms and beds in hotels equipped with tourism operation certificate in Konya is 1,977 and 4,032 respectively, accompanied with an average occupancy rate of 33.9%.

Since tourism activities for Konya are primarily focussed in the Mevlana Museum and events, tourist activities are concentrated in the provincial centre, as a result of which the city centre has turned out to be a venue of high-quality tourism supply in the form of five and four-star hotels, restaurants and travel agencies. Furthermore, the fact that Rumi stands as the foremost tourism asset of the province increases the weight of transit passes and daily accommodations within the overall provincial tourism spectrum. However, value added generated by such tourism mode remains limited. In case the high-speed train line covering the Konya-Ankara route is expanded to the Istanbul-Konya-Antalya axis, the province will enjoy a further enlivened congress tourism, culture tourism, health tourism and district-oriented thermal tourism. For the sake of toning up tourism throughout the province, tourism potential in terms of qualified facility supply, one of the major items of tourism infrastructure, housed by districts other than central districts should also be put to good use. In addition to cultural and historical assets of the province, there is need to tourism investments through which the provincial potential in terms of natural resources such as mountains, natural lakes, forests, wildlife and combinations thereof can be put to good use. More effectively utilizing the tourism potential of the province and boosting tourism revenues owe to a stable coordination in urban planning as well as designing and implementing plans for

enhancing the tourism infrastructure and elevating supply and demand in tourism in qualitative and quantitative terms.

. For the cultivation of tourism infrastructure; enhancing and employing in recreational tourism the natural aura, preserving and more effectively employing in culture tourism the historical and cultural assets, elevating educational and cultural levels of human sources, and identifying the qualities and priorities of infrastructure, plan and project requirements to upgrade tourism are of critical essence.

## **5. Trade Analysis**

- ✓ Extending on a vast territory composed of arable lands, Konya is in nature of a province hosting intensive domestic trade operations mainly represented by highly-diversified industrial products in parallel to the development of manufacturing industry besides agricultural and animal products. In terms of trade assets of the province, agricultural and animal products are of significant essence, followed by other major industrial products represented by agricultural machines, automotive subsidiary industry, rubber-plastic products, agriculture-based processed products, iron and steel products, machines for manufacture, textile and garments, aluminium and marble. With the inauguration of the Konya-Kayacık Logistic Centre, trade operations are expected to accelerate in Konya. Trade is mainly concentrated in the provincial centre. Also major districts such as Akşehir, Ereğli and Seydişehir host a developed level of trade.
- ✓ A developed manufacturing industry in Konya has also triggered a flourishing foreign trade in the province. Particularly during recent periods, a consistent foreign trade deficit is observed throughout the country. On the other hand, Konya reveals a foreign deficit surplus during the 2007-2011 period. And this indicates that Konya has frequently been gaining the character of a net exporter province over the last years.
- ✓ As at 2011, Konya has a net export of USD 1,167,763, dressed with a diversified spectrum of products and countries. The most prominent sector involved in Konya exports is the manufacturing industry. The share of the manufacturing industry in total export has been varying at a range of 95% and above. The breakdown of Konya exports by country reveals that the biggest export destination as at 2011 is Iraq with a share of

13% followed by Italy (7.01%) and Iran (6.50%). Moreover, Germany, Libya, Bulgaria, Russia, USA, Egypt, Spain, United Kingdom, Saudi Arabia, Syria and Greece stand among other export destinations of Konya followed by many other countries to varying extents.

- ✓ According to the sectoral concentration analysis on the manufacturing industry exports of Konya, machine and equipment manufacturing, motor road vehicles, trailers and semi-trailers manufacturing, food and beverages production and sub sectors of base metal industry represent four major sectors in which export is mostly concentrated. Other major sub sectors in the sectoral concentration of Konya exports are the manufacturing of other non-metallic products, metalware industry (excluding machinery and equipment), and plastic and rubber products industry. These sectors are of great essence for the economic assets of Konya such as production, consumption, employment, value added created, impacts induced in sectors with backward and forward linkages, etc.
- ✓ Konya has a recorded import volume of USD 1,170,266 thousand as at 2001. The most prominent sector involved in Konya imports is the manufacturing industry. The breakdown of Konya imports by country reveals that the biggest import source as at 2011 is China with a share of 12.83% followed by Russia (10.74%) and Germany (9.20%). Italy, Taiwan, USA, Poland, Iran, Sweden, Belgium, France, India, Saudi Arabia and South Korea are other import sources of the province, accompanied by many other countries to varying extent.
- ✓ According to the sectoral concentration analysis on the manufacturing industry imports of Konya, chemicals and chemical products manufacturing, machinery and equipment manufacturing, paper and paper products, base metal industry, electrical machines and devices manufacturing not classified elsewhere and beverage production represent four major sectors in which import is mostly concentrated. Analysis for the concentration of Konya imports by sector reveals that the chemicals and chemical products sector is ranked first among sectors where import is concentrated, highlighting how intermediate product import is significant for the manufacturing industry of Konya. Konya stands as a both exporter and importer province in machine and equipment manufacturing not classified elsewhere, base metal industry, and food products and beverages production.

Other major sectors in import are paper and paper products and electrical machinery and device manufacturing. These point to the fact that import focuses both intermediate products and final products.

- ✓ The initiative titled "*Foreign Trade Potential on Province Basis*" conducted by the Ministry of Economy demonstrates the more active and competitive standing of Konya in foreign trade compared to other provinces. According to this initiative, Konya is ranked among provinces with qualified bouncing capability and high sophistication set to be supported through new generation investment incentives. According to the evaluation criteria of said initiative, Konya is ranked high among other provinces. The province is also one of the developed provinces in production and foreign trade composition compared to the general country outlook, and also promises potential in terms of development dynamics.

## **6. Banking Analysis**

- ✓ In Konya, there are 21 active banks and a total of 212 bank branch offices as at March 2012. Of these banks, 3 are deposit banks founded upon public capital, 1 is development and investment bank founded upon public capital, 9 are deposit banks founded upon private capital, and 8 are banks founded upon foreign capital. As at 2010, with a population of 10,489 persons, Konya is ranked 45<sup>th</sup> in the classification of average population per branch office by province. Accordingly, it may be suggested that bank inauguration rate of Konya is low compared to the country average.
- ✓ Banking sector is concentrated in the centre where economic activities in the fields of industry, trade, tourism and services are intensive. It is observed that while number of bank branch offices is higher in relatively more developed districts, generally banks founded upon public capital serve along with 1-2 branch offices in other districts. In bigger districts, greater population size, industrial, agricultural and tourism activity lead to more intensive banking operations. In districts with less population and limited economic activities, an underdeveloped banking sector is a result of low income per capita and consequentially low amounts of savings and loan utilization rates.

- ✓ Amount of deposits in Konya as at 2010 is TL 5,928,158 thousand, and amount of loans made available by banks is TL 6,199,580 thousand. The province is ranked 10<sup>th</sup> in the classification of provinces by deposit share and loan utilization.
- ✓ Assessing the banking sector in Konya particularly from the angle of deposits and loans utilized reveals that the province falls behind respective country averages in terms of deposits per capita and loans utilized per capita, pointing to the fact that tendency to the banking sector in the province in terms of financing and placement is poor. Though consistent rise of the Loan/Deposit ratio over the last years culminating in a recent outreach of 100 percent is perceived positive, it should be noted that this does not mean the utilization of the province's loan potential, but instead implies the fact that deposits per capita fall behind loans per capita. In Konya, loan facilities offered by the banking sector are not utilized as a primary means of funding in covering either individual or corporate demands to finance.

#### **7. Investment Incentives Available for Konya**

- ✓ Most significant incentives for encouraging investments in a region are the investment incentive measures implemented by the state. The incentive practice is aimed at ensuring regional development, removing inter-regional differences of development, and promoting sectors of significant essence.
- ✓ Within the framework of the general incentive system for Konya, a total of 1,727 incentive certificates were granted during the 01.01.2000 - 29.02.2012. Investment value of projects under these certificates is 5,593 million TL, and employment volume is 48,926 employees. For the same period, number of incentive certificates granted for the TR52 Level 2 Region is 1,946, fixed investment value is 6,925 million TL and employment volume is 57,967 employees.
- ✓ In 2010 and 2011, incentive certificates granted to Konya showed a drastic increase, and value of fixed investments under incentive certificates grew by 135.8% in 2010 compared to 2009.

**Table 115: Investment Incentive Certificates for Konya\***

Year	Certificate #	Fixed Investment (TL)	Employment
2000	96	202,802,641	4,491
2001	54	100,294,442	2,348
2002	76	110,216,033	3,253
2003	80	101,509,928	2,072
2004	188	295,128,550	4,760
2005	179	475,133,183	4,242
2006	122	376,242,220	5,320
2007	102	196,942,889	1,962
2008	140	261,536,817	2,653
2009	117	536,431,534	2,990
2010	275	1,265,276,778	7,164
2011	259	1,450,991,856	6,762
*2012	39	220,920,429	929
<b>Total</b>	<b>1.727</b>	<b>5,593,427,300</b>	<b>48,926</b>

(\*) As at 29.02.2012

Source: Turkish Ministry of Economy

The following table comparatively shows statistics of investment incentive certificates granted for Turkey, the TR52 Region and Konya.

**Table 116: Turkey, TR52, Konya - Investment Incentive Certificates**

	Certificate # (quantity)	Fixed Investment Value (Million TL)	Employment (Persons)
<b>2009</b>			
Konya	117	536.4	2.990
TR52	132	580.0	3.682
Turkey	2.722	36,589.4	101.256
Share of Konya (%)	4.3	1.5	2.9
Share of TR52 (%)	4.8	1.6	3.6
<b>2010</b>			
Konya	275	1,265.3	7.164
TR52	316	1,717.7	8.207
Turkey	4.504	66,868.6	159.062
Share of Konya (%)	6.1	1.9	4.5
Share of TR52 (%)	7.0	2.6	5.2
<b>2011</b>			
Konya	259	1,451.0	6.762
TR52	285	1,518.8	7.385
Turkey	4.619	58,048.3	132.130
Share of Konya (%)	5.6	2.5	5.1
Share of TR52 (%)	6.2	2.6	5.6

Source: Turkish Ministry of Economy

- ✓ It is observed that, as at 2011, Konya accounts for 5.6% of incentive certificates granted to whole country, 2.5% of fixed investment value under incentive certificates, and 5.1% of employment proposed under incentive certificates. Breakdown by sector of incentive certificates granted to Konya and the TR52 Level 2 Region for the 01.01.2000-29.02.2012 period is shown in Table 118.

**Table 117: Breakdown of Investment Incentive Certificates for Konya and the TR52 Region by Sector (01.01.2000-29.02.2012)**

Sector	Sub-Sector	Konya			TR52 Level 2 Region		
		Certificate #	Fixed Investment (TL)	Employment	Certificate #	Fixed Investment (TL)	Employment
<b>Agricultural</b>	01 - Plant Pro.	6	48,649,681	161	7	50,366,196	167
	02 – Stock Farming	145	1,023,887,265	5.377	153	1,105,075,300	5.613
	<b>Total</b>	<b>151</b>	<b>1,072,536,946</b>	<b>5.538</b>	<b>160</b>	<b>1,155,441,496</b>	<b>5.780</b>
<b>Mining</b>	01 – Extraction	9	26,922,890	371	16	46,689,010	692
	02 – Processing	5	12,447,951	175	10	22,427,904	510
	03 - Extraction and Proc.	11	33,424,630	278	18	52,137,950	376
	<b>Total</b>	<b>25</b>	<b>72,795,471</b>	<b>824</b>	<b>44</b>	<b>121,254,864</b>	<b>1.578</b>
<b>Manufacturing</b>	01 - Food and Beverages	198	793,088,690	6.463	259	1,145,096,469	10.240
	02 - Textiles	56	86,574,663	1.840	56	86,574,663	1.840
	03 - Forest Products	43	61,797,325	1.198	46	67,263,268	1.338
	04 – Paper	10	55,374,286	190	15	71,292,351	320
	05 - Leather and Cowhide Leather	13	14,856,539	626	13	14,856,539	626
	06 - Rubber and Plastic	113	427,959,302	2.628	126	443,468,715	2.885
	07 – Chemicals	23	205,905,741	975	26	208,118,149	1.022
	08 – Glass	9	15,824,770	351	9	15,824,770	351
	09 - Steel and Iron	19	14,231,673	457	19	14,231,673	457
	10 - Non-Iron Minerals	27	284,743,798	1.098	27	284,743,798	1.098
	11 - Vehicles	255	419,286,074	6.055	257	419,980,409	6.105
	12 - Metalware	112	197,626,318	2.579	117	204,210,171	2.713
	13 - Rubber and Plastic	3	1,064,811	15	6	23,692,927	148
	14 - Machine Manufacturing	235	373,215,794	4.315	238	376,768,909	4.420
	15 - Electrical Machines	10	29,835,939	205	11	29,952,644	235
	16 – Electronics	3	6,524,906	95	3	6,524,906	95
	17 – Cement	18	47,984,952	639	23	54,037,739	715
	18 – Baked Clay Cement App.	31	66,290,885	830	34	70,745,885	870
	19 – Construction	4	6,335,296	1.625	5	24,791,014	2.075
	20 – Ceramic	0	0	0	1	528.880	30
	21 – Others	21	51,006,841	669	24	53,219,418	689
<b>Total</b>	<b>1.203</b>	<b>3,159,528,603</b>	<b>32.853</b>	<b>1.315</b>	<b>3,615,923,297</b>	<b>38.272</b>	

<b>Energy</b>	<b>01 – Energy</b>	<b>10</b>	<b>129,312,049</b>	<b>564</b>	<b>20</b>	<b>691,770,141</b>	<b>809</b>
<b>Services</b>	01 – Transport	76	78,935,969	918	83	115,305,994	1.381
	02 – Tourism	30	406,496,507	1.988	36	442,160,912	2.190
	03 - Trade- Warehousing	29	53,627,772	389	43	77,768,009	625
	04 – Training	9	99,309,920	1.111	10	103,309,920	1.191
	05 – Health	33	282,575,335	3.126	40	320,016,592	3.773
	06 – Others	63	127,580,893	1.156	78	142,616,925	1.756
	07 - Infrastructure- Mun. Services	98	110,727,835	459	117	139,207,854	612
	<b>Total</b>	<b>338</b>	<b>1,159,254,231</b>	<b>9.147</b>	<b>407</b>	<b>1,340,386,206</b>	<b>11.528</b>
<b>Grand Total</b>	<b>1.727</b>	<b>5,593,427,300</b>	<b>48.926</b>	<b>1.946</b>	<b>6,924,776,004</b>	<b>57.967</b>	

Source: Turkish Ministry of Economy

- ✓ Of the incentive certificates granted to Konya during the 01.01.2000 - 29.02.2012 period, 8.7% concern the agriculture sector, 1.4% concern the mining sector, 69.7% concern the manufacturing industry sector, 0.6% concern the energy sector and 19.6% concern the services sector. As is seen, manufacturing industry has the biggest share in investment incentive certificates for the said period in Konya. Sub sectors of the manufacturing industry granted with highest number of investment incentive certificates are ranked as the vehicles sector, machinery manufacturing sector, food products and beverages sector, rubber and plastic products sector and the hardware sector. The stock farming sub sector of the agriculture sector, the infrastructure-municipality services and the transport sub sector of the services sector appear to be the sub sectors granted with highest number of investment incentive certificates. Breakdown by type of incentive certificates granted to Konya and the TR52 Level 2 Region for the 01.01.2000-29.02.2012 period is shown in the table below.

**Table 118: Breakdown of Investment Incentive Certificates for Konya and the TR52 Region by Type (01.01.2000-29.02.2012)**

Investment Type	Konya			TR52		
	Certificate #	Fixed Investment Value (TL)	Employment	Certificate #	Fixed Investment Value (TL)	Employment
Other	186	568,044,776	2.350	210	603,893,643	3.572
KYY	910	3,769,649,528	33.931	1.065	4,855,874,072	39.615
Tevsi	631	1,255,732,996	12.645	671	1,465,008,289	14.780
<b>Total</b>	<b>1.727</b>	<b>5,593,427,300</b>	<b>48.926</b>	<b>1.946</b>	<b>6,924,776,004</b>	<b>57.967</b>

Source: Turkish Ministry of Economy

- ✓ Of investment incentive certificates granted to Konya for the 01.01.2000-29.02.2012 period, 52.7% are for completely new investments, 36.5% are for expansion investments and 10.8% are for other investment types. Number of investment incentive certificates granted to Konya as at 2011 is 259. Of them, 57.9% are for completely new investments, 36.3% are for expansion investments and 5.8% are for other investments.

## **8. Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis**

In this part, a general analysis discussing the strengths and weaknesses of, and opportunities and threats for Konya (the SWOT Analysis) is presented.

The SWOT analysis constitutes a major step of the research for appropriate fields of investment with a view to identifying critical factors of achievement in activities or markets where the region or the province may be involved or compete, comparing the source profile to the critical achievement factors to address strengths and weaknesses, and concluding whether strengths and weaknesses, sources or skills may yield a sufficient level of competitive advantage.

Within the scope of this initiative, the strengths and weaknesses of the province in related sectors have been identified, and conditions creating opportunities and threats or the province have been discussed through negotiations with appropriate public and private organizations and entities in Konya as well as researches, analyses and assessments for the province.

## 8.1. Strengths

Of the SWOT analysis components, **strengths** essentially result from human and physical resources and the competitive advantage. Topics that may be handled under this heading containing intrinsic items to be highlighted and preserved have been identified for Konya as follows:

STRENGTHS	
<ul style="list-style-type: none"> <li>• Due to its geographical situation, Konya is located on routes linking the Mediterranean Region to Central Anatolia, and the Aegean Region to the East and South East. Thanks to its proximity to developed provinces including Ankara, Adana, Kayseri, Mersin and Antalya, the province has an attractive location for business location factors.</li> <li>• Least seismic risk,</li> <li>• Wealth of underground resources (aluminium, magnesite, lignite, coal, clay, cement raw materials, lead, zinc, baryte, geothermal resources),</li> <li>• The province is a major trade and accommodation centre at the junction of routes linking the north to south, and east to west in highway transport,</li> <li>• Availability of railway transport, and the Ankara-Konya High-Speed Train line being in service,</li> <li>• Involvement, through the Konya/Kayacık station, in the logistic centres project implemented by Turkish State Railways; and integrated and sophisticated facilities offering transport, warehousing and transport services combined with highway, railway, seaway and airway accessibility,</li> <li>• Availability of airway transport,</li> <li>• Presence of potential areas for establishing wind power stations (Seydişehir, Derebucak, Taşkent and Akşehir districts),</li> <li>• Vast and nonarable land stock, particularly in the Karapınar region, available for erecting solar energy stations, and high potential in terms of sunshine values,</li> <li>• Young population at employment age constituting majority part of the whole population,</li> <li>• Better standing compared to country average in terms of social security,</li> <li>• No issue in the procurement of educationally qualified/non-qualified taskforce, growing academic texture of the province, making it a major source of labour for the overall country,</li> </ul>	<ul style="list-style-type: none"> <li>• Existence of sufficient infrastructure for the development of the healthcare sector, and potential for being a health centre in the region,</li> <li>• Centre of faith tourism, in particular Rumi,</li> <li>• Wealth of historical and cultural assets as well as thermal tourism, lake tourism and nature tourism potential,</li> <li>• The province has been a trade centre since historical ages thanks to its geographical location, and is dressed with the diversification of agricultural and industrial products,</li> <li>• The province is an experienced, active and competitive province in foreign trade,</li> <li>• Export is based on the products of the manufacturing industry at a rate of 95% and above; sectoral concentration in export is mainly on machine and equipment manufacturing not classified elsewhere, motor road vehicles, trailer and semi-trailer manufacturing, food and beverage production and base metal industries; and there is a huge diversity of products exported,</li> <li>• Export destinations are diverse,</li> <li>• Export import coverage ratios are high, the province has gained the net exporter position in foreign trade,</li> <li>• Wealth of arable lands,</li> <li>• Presence of a food industry where agricultural products are processed,</li> <li>• Wealth of products with branding potential in agriculture and agricultural industry,</li> <li>• Agricultural tools and equipment are adequate,</li> <li>• Distinct agricultural methods such as organic farming are available,</li> <li>• High production potential in stock farming,</li> <li>• Proximity to potential marketplaces in stock farming,</li> <li>• Presence of OIZ and SIA,</li> </ul>

## 8.2. Weaknesses

Weaknesses underlying the current composition and intrinsic matters contain aspects requiring measures, improvement and elimination. Weaknesses identified exclusively for Konya are as follows:

<b>WEAKNESSES</b>	
<ul style="list-style-type: none"> <li>• Water resources in Konya are scarce, water is a very precious scarce resource, and rational consumption of water resources is not sufficient, water distribution plans and operation mechanisms should be developed for controlled irrigation,</li> <li>• Poor forest wealth,</li> <li>• Migratory outflows and inflows in parallel to growing unemployment in rural areas, and the province clearly loses migrants,</li> <li>• Poor utilization of the tourism potential due to the fact that tourism sector countrywide is planned and supported rather in favour of coastal tourism,</li> <li>• Transit passes and daily visits have a greater weight due to the emphasis on the Mevlana Museum within the context of tourist events,</li> <li>• High-quality tourism supply is concentrated in the city centre, therefore tourism potential in districts cannot adequately be put to good use,</li> <li>• Banking sector is concentrated in major districts, Underdeveloped banking sector due to poor income and savings level in other districts, and limited loan utilization,</li> </ul>	<ul style="list-style-type: none"> <li>• Bank deposits in the province per capita and branch office are quite low compared to country averages, routing savings to the banking sector is low,</li> <li>• Bank loans in the province per capita and branch office are below the country averages, high tendency to prefer auto financing or non-bank financial institutions in meeting the demand to financing,</li> <li>• Salinization and sink-hole formation in arable lands,</li> <li>• Poor utilization of distinct agricultural potentials (organic farming etc.),</li> <li>• Inadequate qualified intermediate staff,</li> <li>• Paucity of specialized industrial zones,</li> <li>• Procurement of raw materials other than agricultural industry materials from external sources,</li> <li>• Lack of an industrial inventory records,</li> <li>• Deprivation of affordable lands for new investments,</li> </ul>

### 8.3. Opportunities

Aspects offering opportunities for the economic and social development of Konya are presented below:

<b>OPPORTUNITIES</b>	
<ul style="list-style-type: none"> <li>• Geographical location, climatic conditions, natural resources, technical and social infrastructure being available and suitable for economic developments,</li> <li>• Once the highways and the Ankara-Pozantı Motorway currently under construction are completed, accessibility to Şanlıurfa, Diyarbakır, Ankara and Istanbul will greatly be eased.</li> <li>• With the logistic centre put into service, load transport will be moved to the uptown, hence it will be possible to transform provincial centre areas into urban service zones in a more organized manner,</li> <li>• The logistic centre project will allow the establishment of integrated and sophisticated facilities in forwarding, warehousing and transport,</li> <li>• In case efforts for structuring Mersin as an International Logistic Centre are initiated by the Ministry of Economy, and in case Konya is linked to the Mersin Port via railway, Konya will have great advantages for foreign trade,</li> <li>• Wealth of historical and cultural assets as well as alternative tourism means create advantages in terms of tourism investments,</li> <li>• The province is one of the developed provinces within the country's production and foreign trade composition promising potential in terms of development dynamics, eligible for support through new-generation investment incentives,</li> </ul>	<ul style="list-style-type: none"> <li>• Renewable energy resources such as wind and solar energy allow resource diversity and supply safety in energy,</li> <li>• Rise in the number of public and private universities triggers developments in the province in educational and scientific terms, consequentially inducing positive economic, cultural and social impacts,</li> <li>• The province gains health tourism potential in parallel to the flourishing healthcare sector,</li> <li>• The province has progressively growing utilization of public investments</li> <li>• Expected growth in the volume of lands to be irrigated under the Konya Plain Project (KPP)</li> <li>• Organic farming practices</li> <li>• Modernization of animal production</li> <li>• Establishment of the Organized Stock Farming Zone,</li> <li>• Wealth of minerals that may be utilized as industrial inputs (bauxite, chromium, etc.)</li> <li>• Establishment of the Science Centre in the province,</li> <li>• Presence of Konya Teknokent</li> <li>• Raising awareness in brand</li> </ul>

## 8.4. Threats

Threats including obstacles to the economic and social development of Konya and devastating factors have been identified as follows:

THREATS	
<ul style="list-style-type: none"> <li>• Though Konya has a development vision, it keeps losing migrants, and the population resident in particular the uptown has a tendency to move outside the region,</li> <li>• The tendency to utilize savings in non-banking areas is high in the province,</li> <li>• Despite Mevlana-based faith tourism in the province, tourist events take place rather in the form of daily or transit visits yielding limited value added,</li> <li>• Paucity of water resources,</li> <li>• Railway link to the Mersin Port has not been realized yet,</li> </ul>	<ul style="list-style-type: none"> <li>• Salinization and sink-hole formation in arable lands because of wrong and excessive irrigation,</li> <li>• Climatic changes,</li> <li>• Environmental pollution,</li> <li>• Drop in the amount of surface and underground water resources,</li> <li>• Potential domestic and international macroeconomic crises</li> <li>• Stock import from the abroad,</li> <li>• Non-institutionalized nature of family corporations,</li> <li>• High branding costs,</li> <li>• Negligence in attaching essential importance to R&amp;D and innovation investments</li> </ul>

## 9. Availability of the Development Components

The factors directly impacting the economic progress and therefore called "**Development Components**", namely the geographical composition, technical and social infrastructure, efficiency of the tourism sector, availability of capital, raw materials, technology and labour, etc. are briefly described below for Konya.

Of 20 development components identified for Konya, 16 are found to be sufficient, and 4 are found to be partially sufficient. There is no insufficient factor in the region in terms of the development components.

COMPONENTS		LEVEL OF AVAILABILITY		
		Sufficient	Partially Sufficient	Poor
Geographical Composition		✓		
Proximity to Market		✓		
Technical Infrastructure	Road Transport	✓		
	Railway Transport	✓		
	Air Transport	✓		
	Communication	✓		
	Energy	✓		
Social Infrastructure	Education	✓		
	Healthcare Services	✓		
Availability of Tourism Resources		✓		
Tourism Infrastructure Investments			✓	
Technology		✓		
Entrepreneur Potential			✓	
Labour		✓		
Senior Managers and Technical Staff			✓	
Capital			✓	
Raw Material		✓		
Organized Industrial Zone		✓		
Small-Scale Industrial Sites		✓		
University-Industry Collaboration		✓		

As the *Table of Development Components* reveals, geographical features of Konya yield a major potential in the region both in terms of agricultural production and industry.

Geographical structure and climatic features in Konya are suitable for agricultural production. 55.1% of the provincial territory constitutes arable land utilized for field farming to a great extent. The most developed component of agriculture in the province is plant production. Primarily field crops are produced in Konya, and besides cereal and industrial products, fruits and vegetables also constitute a major field of agriculture. Stock farming has a major standing within agricultural operations of the province. The provincial territory of Konya offers a suitable background for stock farming. The stock inventory of the province is

primarily accounted for by ovine. Stock farming, and in particular sheep and cattle breeding conducted in combination with plant production in the province, is a major economic effort.

From the angle of tourism, as a residential area that has hosted historical civilizations to date, Konya appears to be in nature of an outdoor museum with its historical artworks and artefacts. While tourism events in Konya focus on Mevlana, the province is also dressed with a potential in terms of lake tourism, thermal tourism and nature tourism besides its enriched historical and cultural heritage. However, we observe that unfortunately such potential is not satisfactorily utilised, potentially underpinned at designing and supporting tourism sector rather in favour of coastal tourism.

The province is equipped with organized industrial zones with sophisticated infrastructure, and this both avoids distorted industrial progress, and also brings in significant advantages for investors. Features of organized industrial zones in the region (infrastructure, energy, transport, etc.) brings in advantages for industrialists during the investment and operation period, and also contributes to the positive progress of the competitive power.

Extending on a vast territory composed of arable lands, Konya is in nature of a province hosting intensive domestic and foreign trade operations mainly represented by highly-diversified industrial products in parallel to the development of manufacturing industry besides agricultural and animal products. In terms of trade assets of the province, agricultural and animal products are of significant essence, followed by other major industrial products represented by agricultural machines, automotive subsidiary industry, rubber-plastic products, agriculture-based processed products, iron and steel products, machines for manufacture, textile and garments, aluminium and marble. A developed manufacturing industry in Konya has also triggered a flourishing foreign trade in the province. With the inauguration of the Konya-Kayacık Logistic Centre, trade operations are expected to accelerate in Konya.

From the angle of the banking sector, the province appears to have lower tendency to utilize banking services in terms of deposits level and loan utilization compared to the country average. As at 2010, the province hosts a deposit volume of 5,928 million TL, accounting for 1% of total deposits in the country. Loans made available within the banking system sum

6,200 million TL, representing 1.2% of total loans made available in the country. In Konya, loan facilities offered by the banking sector are not utilized as a primary means of funding in covering either individual or corporate demands to finance. It may be argued that, to meet financial requirements, companies tend to prefer either auto financing or non-bank financial institutions.

In Konya where there is no major issue in terms of labour, one of the significant components of the production process, no problem is suffered in the procurement of qualified and non-qualified labour.

### III. CLASSIFICATION OF PROPOSED INVESTMENT FIELDS BY ASSESSMENT CRITERIA

#### 1. Assessment Criteria

In assessing the fields of assessment proposed for Konya, two separate assessment criteria have been applied to the agriculture and industry sector. For the fields of investment involved in mining, energy and services sector, the assessment criteria applied to the industry sector have been considered.

Fields of investment proposed for the **agriculture sector** have been discussed based on 10 criteria, namely: *Market Opportunities, Proximity to Auxiliary Material and Raw Material Resources, Transport, Labour, Energy, Fuel and Water, Land Status, Social and Cultural Environment, Climatic Conditions, Incentive Measures and Total Investment Value, Operating Capital Requirements and Finance Opportunities. Total factor score for each field of investment*; Factor weights between 1 and 3, and scores assigned between 1-10 by considering the investment in question are multiplied and aggregated to yield the total factor point.

Fields of investments proposed for the **industry sector** have been assessed based on 16 criteria, namely: *Market Opportunities, Proximity to Auxiliary Material and Raw Material Resources, Transport, Labour, Energy and Fuel, Water, Land Cost, Social and Cultural Environment, Climatic Conditions, Disposal of Wastes, Incentive Measures, Proximity to Subsidiary Industry, Procurement of Senior Directors and Technical Staff, Communication Opportunities, Total Investment Value, Operating Capital Requirements, Finance Opportunities and Utilization of Banking Services, and Other (Security, Compliance with*

*National Defence, etc.) Again, **total factor score for each field of investment**; Factor weights between 1 and 3, and scores assigned between 1-10 by considering the investment in question are multiplied and aggregated to yield the total factor point.*

Furthermore, the fields of investment proposed have been discussed under three major groups to reflect their relative strengths in themselves;

***Group A: Covers the fields of entrepreneurship considered to be problem-free in terms of both demand-market-resource, and investment dimensions, profitability and degree of risk.***

***Group B: This group covers seamless investments like those in group A based on regional opportunities and background readiness. The group also covers the fields of entrepreneurship requiring more detailed initiative due to particular criteria such as location, marketing, capacity, labour, etc.***

***Group C: This group covers the fields of investment with significant potential from the angle of input and output assessment that may be required by the region and the country. However, this group covers fields of entrepreneurship requiring a a particular infrastructure as well as a more serious background preparatory period compared to other groups depending on economic formation and developments.***

***Accordingly;***

***For the agriculture sector; the following score ranges correspond to the following respective investment groups next to them:***

***0-120 points, Group C***

***121-160 points, Group B***

***161-200 points, Group A***

***For manufacturing industry, mining, energy and services sector;***

***0-150 points, Group C***

***151-200 points, Group B***

***201-250 points, Group A***

## **2. Fields of Investment Proposed**

While suggesting appropriate fields of investment for Konya, the geographical situation, socioeconomic development level, natural resource potential, agricultural production potential, industrial production and concentration of trade operations, domestic demand, foreign demand and development dynamics of the province have been taken into account. In Konya primarily dominated by agricultural activities except for the metropolitan city and several certain districts, fields of investment suggested based on agricultural potential constitute the fields that are thought to be seamlessly implemented throughout the whole province. Fields of investment suggested for the mining and energy sector have been identified by taking into account the natural resources and potentials of the province. Fields of investment suggested for the manufacturing industry and the services sector have been identified based on various factors including the province's manufacturing potential and infrastructure, domestic and foreign demand, trade volume, combination of import and export in parallel to prominent sectors revealed by the analyses for sectoral concentration in foreign trade, production of import substitution products, development dynamics of the province, qualified and non-qualified taskforce potential, and socioeconomic status.

Geographical, social and economic conditions of Konya have extensively been surveyed under particular sub headings through both in-situ observations, researches and negotiations, and also data collected from appropriate sources and researches conducted whereby fields of investment for Konya have been suggested based upon the data and findings obtained as well as analyses and assessments performed. Fields of investment proposed for the province are presented under particular main sectors as follows.

### **2.1. Investments in the Mining Sector**

Konya has rich mineral reserves. There are myriad of mines currently worked out and contributing to both the provincial and country finance. Fields of investment in the province that are appropriate for investment are as follows:

- ***Mining-Extraction and Processing: Marble Extraction and Processing,***
- ***Mining-Extraction and Processing: Lignite Extraction,***

- ***Mining-Extraction and Processing: Sand-Gravel Extraction and Processing,***
- ***Mining-Extraction and Processing: Bentonite Extraction,***
- ***Mining-Extraction and Processing: Clay Extraction,***
- ***Mining-Extraction and Processing: Kaolin Extraction.***

The fields of investment suggested above for utilizing the mining potential of the province as well as increasing the value added of these products are just for suggestion purposes, and each field requires an individual feasibility survey.

## **2.2. Investments in the Energy Sector**

Electrical energy demand of Konya is currently satisfied through the outputs of hydraulic and thermal power plants. Wind and solar energy that are classified as renewable energy resources, constitute major potential energy sources for Konya. The following fields of investment are suggested for the energy field:

- ***Energy-Energy: Wind Power Plant (WPP).*** Potential total installed power and total area for wind power plant construction has been identified as 1,860 MW and 372 km<sup>2</sup> respectively, and particularly WPP investments require feasibility surveys.
- ***Energy-Energy: Solar Energy Plant (SEP).*** In Turkey, solar energy investments have been limited to a total of 600 MW until the end of 2012. Of this, 92 MW has been allocated to Konya. Particularly SEP investments that may be made in Karapınar Region of Konya require feasibility surveys.

## **2.3. Investments in the Agriculture Sector**

The main investment field in Konya is plant production. Plant production in the province took its current shape based on prevailing natural conditions and the topographic condition of the land, and commonly cereal production is conducted. With the growing number of lands opened to irrigation, industrial plant and fruit-vegetable production has been flourished.

Stock farming has a major standing within agricultural operations of the province. Extending on a huge territory, provincial lands of Konya constitute a suitable background for stock farming. Farmers engaged in plant production due to poor precipitation in the province have headed towards stock farming as a secondary field of activity. Konya holds a major share in

country total in terms of stock inventory. Fields of investment suggested for the agriculture sector by taking into account the qualitative and quantitative composition of plant production in Konya are as follows:

- ***Agriculture-Plant Production: Greenhousing,***
- ***Agriculture-Plant Production: Forage Plant Breeding,***
- ***Agriculture-Stock Farming: Dairy Cattle Breeding,***
- ***Agriculture-Stock Farming: Bovine Breeding,***
- ***Agriculture-Stock Farming: Ovine Breeding,***

#### **2.4. Investments for the Manufacturing Industry**

Konya stands as a major production and trade centre providing accessibility between northern and southern, and eastern and western provinces. The province offers enriched agricultural and stock production as well as a sophisticated manufacturing industry thanks to its arable lands. In parallel to the flourishing manufacturing industry, diversity of industrial products has grown in the province, expanding the spectrum of domestic and foreign trade products. In terms of trade assets of the province, agricultural and animal products are of significant essence, followed by other major industrial products represented by agricultural machines, automotive subsidiary industry, rubber-plastic products, agriculture-based processed products, iron and steel products, machines for manufacture, textile and garments, aluminium and marble. Production and trade are mainly concentrated in the provincial centre. Also major districts such as Akşehir, Ereğli and Seydişehir host a developed level of production and trade.

A developed manufacturing industry in Konya has also triggered a flourishing foreign trade in the province. According to the sectoral concentration analysis conducted in the manufacturing industry exports of Konya, export appears to have concentrated in the sub sectors of machine and equipment, motor road vehicles, trailers and semi-trailers, foods and beverages, base metal, other non-metal products, metalware industry (excluding machinery and equipment) and plastic and rubber products. These sectors are of great essence for the economic assets of Konya such as production, consumption, employment, value added created, impacts induced in sectors with backward and forward linkages, etc.

According to the sectoral concentration analysis conducted in the manufacturing industry imports of Konya, import appears to have concentrated in the sub sectors of machinery and equipment, paper and paper products, food products and beverages.

Fields of investment suggested for the manufacturing industry by taking into account the development level of the the manufacturing industry and the latter's infrastructure as well as trade analyses and development dynamics are as follows:

- ***Foodstuff and beverage production: milk and milk products,***
- ***Foodstuff and beverage production: Eat and meat products,***
- ***Foodstuff and beverage production: Poultry and Poultry products,***
- ***Foodstuff and beverage production: Chocolate and cacao products, various candies,***
- ***Foodstuff and beverage production: Vegetable-fruit drying, processing and packaging facility,***
- ***Foodstuff and beverage production: Vegetable and fruit juices,***
- ***Leather Tanning and Processing: Footwear production,***
- ***Leather Tanning and Processing: Bag, pursue production,***
- ***Paper and paper products production: Corrugated cardboard, cardbox production,***
- ***Paper and paper products production: Foldable cardboard, box from non-corrugated paper or cardbox production,***
- ***Production of chemicals: Various adhesives, gas concrete, chemical anchors, polyurethane mastics,***
- ***Production of chemicals: CMC-Carboxymethyl-cellulose,***
- ***Production of chemicals: Liquid detergents powder detergents,***
- ***Production of chemicals: Nitrogen minerals or chemical fertilizers,***
- ***Production of plastic and rubber products: Plastic sprinkling and irrigation equipment,***
- ***Production of plastic and rubber products: PVC joinery,***
- ***Production of plastic and rubber products: Plastic dispensers, bottles and other package products,***

- *Production of plastic and rubber products: Plastic boxes, cases, crates and similar stuff,*
- *Production of medical devices, optic precision instruments and clocks: Production of wheel balancing machines and test devices,*
- *Production of medical devices, optic precision instruments and clocks: Dialyzators,*
- *Production of medical devices, optic precision instruments and clocks: Plastic oxygen masks, plastic nasal oxygen cannula, nebulizer sets,*
- *Production of fabricated metal products other than machines and equipment: Panel radiators,*
- *Production of fabricated metal products other than machines and equipment: Forged appurtenances and parts for motor road vehicles, railways and armoured defence vehicles,*
- *Production of fabricated metal products other than machines and equipment: Production of aluminium conductors,*
- *Production of fabricated metal products other than machines and equipment: Aluminium handrail systems,*
- *Production of fabricated metal products other than machines and equipment: Prefabricated structural metal components,*
- *Production of machines and equipment not classified elsewhere: Solar energy systems (collectors),*
- *Production of machines and equipment not classified elsewhere: Various agricultural equipment and machines,*
- *Production of machines and equipment not classified elsewhere: Water treatment and mineralization device,*
- *Production of machines and equipment not classified elsewhere: Milling and flour sifting machines,*
- *Production of machines and equipment not classified elsewhere: Chocolate and confectionery machines, moulds*
- *Production of machines and equipment not classified elsewhere: Production of plastic, aluminium and metal moulds,*

- *Production of electrical machines and equipment not classified elsewhere: Vehicle headlights and signalization components,*
- *Production of electrical machines and equipment not classified elsewhere: Plug cables, insulated power cables,*
- *Production of other non-metallic mineral products: Ready-mixed concrete,*
- *Production of other non-metallic mineral products: Production of bricks and hollow tiles,*
- *Production of other non-metallic mineral products: Pumice blocks and concrete parquets,*
- *Production of other non-metallic mineral products: Prefabricated structural components,*
- *Production of other non-metallic mineral products: Thermally insulated glass, double-glazing, tempered glass,*
- *Production of motor road vehicles, trailers and semi-trailers: Parts and accessories for engines of motor road vehicles,*
- *Production of motor road vehicles, trailers and semi-trailers: Loaders, trailers, dampers, body sheets,*
- *Production of motor road vehicles, trailers and semi-trailers: Commercial vehicle air-conditioners and cooling systems, machine cooling systems,*
- *Production of motor road vehicles, trailers and semi-trailers: Wheel rims, trailer swivel jacks, trailer lifts,*
- *Production of motor road vehicles, trailers and semi-trailers: Axle gear, engine, gear box and brake replacement parts,*
- *Production of motor road vehicles, trailers and semi-trailers: Tractor parts and accessories.*

## **2.5. Investments in the Services Sector**

Fields of investment suggested for the services sector by taking into account the factors such as the current production layout, infrastructure means, trade activities, developments in the logistics sector, tourism potential, major developments scored in the training sector, and province's major standing in the healthcare sector are as follows:

- *Services-Trade-Storage: Cold storages,*
- *Services-Trade-Storage: Bean packaging, storage,*
- *Services-Trade-Storage: Seed storage, sorting and packaging,*
- *Services-Trade-Storage: Grain warehousing services,*
- *Services-Trade-Storage: Packaging and labelling services,*
- *Services-Trade-Storage: Egg sorting and packaging,*
- *Services-Tourism: Dormitories,*
- *Services-Tourism: Five-star hotels,*
- *Services-Tourism: Four-star hotels,*
- *Services-Healthcare: Surgical hospital services,*
- *Services-Others: Sterilization of medical wastes,*
- *Services-Others: Plastic recovery.*

### **3. Classification of Suggestions According to the Assessment Criteria**

Of 69 fields of investment identified by taking into account the economic, social and natural conditions as well as the development dynamics of Konya, 19 are involved in Group A, and 50 in Group B.

Of the fields of investment involved in Group A and classified among seamless fields of investment, 3 concern the agriculture and stock farming sector, 10 concern the manufacturing industry sector and 6 concern the services sector.

Of fields of investment classified under group B dependent on particular conditions and background preparations, 6 concern the mining sector, 2 concern the energy sector, 2 concern the agriculture and stock farming sector, 35 concern the manufacturing industry and 5 concern the services sector.

***Fields of investment under Group A and B suggested for the Konya region are in nature of a preliminary assessment, and dependent on the results of technical, economic and financial feasibility studies.***

Rate of realization of investment suggestions in question is certainly dependent on motivating potential investors towards investing in the Konya region.

Classification of fields of investments suggested for Konya by their relative strengths, and assessment of suggested fields of investments according to the establishment site criteria are presented in the tables below towards the agriculture and stock farming sector, mining sector, energy sector, manufacturing industry and the services sector.

**Table 119: Assessment of Proposed Investments in Agriculture and Stock Farming Sector With Respect to Location Factors**

Location Factors	Factor Weight	Greenhousing		Cultivation of Fodder Crops		Dairying		Livestock Breeding		Ovine Breeding	
		Score	Factor Score	Score	Factor Score	Score	Factor Score	Score	Factor Score	Score	Factor Score
1. Market Opportunities	3	9	27	8	24	9	27	8	24	8	24
2. Proximity to Auxiliary Material and Raw Material Sources	2	9	18	8	16	9	18	8	16	8	16
3. Transport	1	8	8	8	8	9	9	8	8	8	8
4. Labour	1	9	9	9	9	9	9	8	8	8	8
5. Energy, Fuel and Water	2	7	14	7	14	9	18	7	14	7	14
6. Land Condition	3	9	27	9	27	9	27	9	27	9	27
7. Social and Cultural Environment	1	9	9	9	9	9	9	9	9	9	9
8. Climatic Conditions	3	9	27	9	27	8	24	8	24	8	24
9. Incentives	2	6	12	6	12	7	14	8	16	7	14
10. Total Investment Value, Operating Capital Requirement and Financing Opportunities	2	8	16	7	14	7	14	8	16	8	16
<b>Total Factor Score</b>		<b>167</b>		<b>160</b>		<b>169</b>		<b>162</b>		<b>160</b>	
<b>Relative Superiority Group Involving the Investment</b>		<b>A</b>		<b>B</b>		<b>A</b>		<b>A</b>		<b>B</b>	

**Table 120: Assessment of Proposed Investments in Mining Sector With Respect to Location Factors**

Location Factors	Factor Weight	Marble Extraction and Processing		Lignite Extraction		Sand-Gravel Extraction and Processing		Bentonite Extraction	
		Score	Factor Score	Score	Factor Score	Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	6	18	6	18	7	21	6	18
2. Proximity to Auxiliary Material and Raw Material Sources	2	7	14	8	16	7	14	7	14
3. Transport	1	6	6	6	6	6	6	7	7
4. Labour	2	6	12	7	14	6	12	6	12
5. Energy, Fuel and Water	1	6	6	6	6	6	6	6	6
6. Land Cost, Topographic Structure and Construction Cost	1	6	6	7	7	6	6	6	6
7. Social and Cultural Environment	1	7	7	7	7	7	7	7	7
8. Climatic Conditions	1	7	7	7	7	7	7	7	7
9. Conformance to Environmental Conditions	2	6	12	6	12	6	12	6	12
10. Incentives	2	7	14	8	16	7	14	7	14
11. Proximity to Supply Industry	1	5	5	6	6	5	5	5	5
12. Procuring Senior Managers and Technical Staff	2	6	12	7	14	6	12	6	12
13. Communication Facilities	1	8	8	8	8	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	7	14	7	14	7	14	7	14
15. Utilization of Financing Means and Banking Services	1	7	7	7	7	7	7	7	7
16. Other (Security, Conformance to National Defence, etc.)	2	7	14	7	14	7	14	7	14
<b>TOTAL</b>	-	-	<b>162</b>	-	<b>172</b>	-	<b>165</b>	-	<b>163</b>
<b>Relative Superiority Group Involving the Investment</b>	-	<b>B</b>		<b>B</b>		<b>B</b>		<b>B</b>	

**Table (cont'd)**

Location Factors	Factor Weight	Clay Extraction		Kaolin Extraction	
		Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	7	21	6	18
2. Proximity to Auxiliary Material and Raw Material Sources	2	7	14	7	14
3. Transport	1	6	6	6	6
4. Labour	2	6	12	6	12
5. Energy, Fuel and Water	1	6	6	6	6
6. Land Cost, Topographic Structure and Construction Cost	1	6	6	6	6
7. Social and Cultural Environment	1	7	7	7	7
8. Climatic Conditions	1	7	7	7	7
9. Conformance to Environmental Conditions	2	6	12	6	12
10. Incentives	2	6	12	6	12
11. Proximity to Supply Industry	1	5	5	5	5
12. Procuring Senior Managers and Technical Staff	2	6	12	6	12
13. Communication Facilities	1	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	7	14	7	14
15. Utilization of Financing Means and Banking Services	1	7	7	7	7
16. Other (Security, Conformance to National Defence, etc.)	2	7	14	7	14
<b>TOTAL</b>			<b>163</b>		<b>160</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>B</b>		<b>B</b>

**Table 121: Assessment of Proposed Investments in Energy Sector With Respect to Location Factors**

Location Factors	Factor	Wind Power Station	Solar Energy Station
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	Weight	Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	7	21	7	21
2. Proximity to Auxiliary Material and Raw Material Sources	2	7	14	8	16
3. Transport	1	4	4	6	6
4. Labour	2	6	12	5	10
5. Energy, Fuel and Water	1	7	7	7	7
6. Land Cost, Topographic Structure and Construction Cost	1	6	6	7	7
7. Social and Cultural Environment	1	7	7	7	7
8. Climatic Conditions	1	9	9	9	9
9. Conformance to Environmental Conditions	2	9	18	9	18
10. Incentives	2	8	16	8	16
11. Proximity to Supply Industry	1	7	7	7	7
12. Procuring Senior Managers and Technical Staff	2	5	10	5	10
13. Communication Facilities	1	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	4	8	3	6
15. Utilization of Financing Means and Banking Services	1	4	4	3	3
16. Other (Security, Conformance to National Defence, etc.)	2	8	16	8	16
<b>TOTAL</b>			<b>167</b>		<b>167</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>B</b>		<b>B</b>

**Table 122: Assessment of Proposed Investments in Manufacturing Industry Sector With Respect to Location Factors**

Location Factors	Factor Weight	Milk and Milk Products		Meat and Meat Products		Poultry and Poultry Products		Chocolate and Cacao products, Various Candies,	
		Score	Factor Score	Score	Factor Score	Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	9	27	9	27	9	27	9	27

2. Proximity to Auxiliary Material and Raw Material Sources	2	8	16	8	16	8	16	8	16
3. Transport	1	8	8	8	8	8	8	8	8
4. Labour	2	8	16	8	16	8	16	8	16
5. Energy, Fuel and Water	1	8	8	8	8	8	8	8	8
6. Land Cost, Topographic Structure and Construction Cost	1	8	8	8	8	8	8	8	8
7. Social and Cultural Environment	1	8	8	8	8	8	8	8	8
8. Climatic Conditions	1	9	9	9	9	9	9	9	9
9. Conformance to Environmental Conditions	2	8	16	8	16	8	16	8	16
10. Incentives	2	7	14	7	14	7	14	6	12
11. Proximity to Supply Industry	1	8	8	8	8	8	8	7	14
12. Procuring Senior Managers and Technical Staff	2	8	16	8	16	8	16	8	16
13. Communication Facilities	1	8	8	8	8	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	7	14	7	14	7	14	8	16
15. Utilization of Financing Means and Banking Services	1	7	7	7	7	7	7	8	8
16. Other (Security, Conformance to National Defence, etc.)	2	9	18	9	18	9	18	9	18
<b>TOTAL</b>			<b>201</b>		<b>201</b>		<b>201</b>		<b>208</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>A</b>		<b>A</b>		<b>A</b>		<b>A</b>

Table (cont'd)

Location Factors	Factor Weight	Vegetable and Fruit Drying		Vegetable and Fruit Juices		Footwear		Bag, Pursue, etc.	
		Score	Factor Score	Score	Factor Score	Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	7	21	8	24	7	21	7	21
2. Proximity to Auxiliary Material and Raw Material Sources	2	8	16	8	16	7	14	7	14
3. Transport	1	8	8	8	8	8	8	8	8
4. Labour	2	8	16	8	16	8	16	8	16
5. Energy, Fuel and Water	1	8	8	8	8	8	8	8	8
6. Land Cost, Topographic Structure and Construction Cost	1	8	8	8	8	8	8	8	8
7. Social and Cultural Environment	1	8	8	8	8	8	8	8	8
8. Climatic Conditions	1	8	8	8	8	8	8	8	8
9. Conformance to Environmental Conditions	2	8	16	8	16	6	12	6	12
10. Incentives	2	6	12	6	12	6	12	6	12
11. Proximity to Supply Industry	1	7	7	7	7	7	7	7	7
12. Procuring Senior Managers and Technical Staff	2	8	16	8	16	8	16	8	16
13. Communication Facilities	1	8	8	8	8	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	7	14	7	14	7	14	7	14
15. Utilization of Financing Means and Banking Services	1	7	7	7	7	7	7	7	7
16. Other (Security, Conformance to National Defence, etc.)	2	9	18	9	18	9	18	9	18
<b>TOTAL</b>			<b>191</b>		<b>194</b>		<b>185</b>		<b>185</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>B</b>		<b>B</b>		<b>B</b>		<b>B</b>

Table (cont'd)

Location Factors	Factor Weight	Corrugated Cardboard, Cardbox		Foldable Cardboard, Box from Non-Corrugated Paper / Cardbox		Various Adhesives, Gas Concrete, Chemical Anchors, Polyurethane Mastics		CMC-Carboxymethyl-Cellulose,	
		Score	Factor Score	Score	Factor Score	Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	8	24	8	24	7	21	7	21
2. Proximity to Auxiliary Material and Raw Material Sources	2	6	12	6	12	5	10	5	10
3. Transport	1	7	7	7	7	7	7	7	7
4. Labour	2	8	16	8	16	7	14	7	14
5. Energy, Fuel and Water	1	7	7	7	7	7	7	7	7
6. Land Cost, Topographic Structure and Construction Cost	1	7	7	7	7	7	7	7	7
7. Social and Cultural Environment	1	8	8	8	8	8	8	8	8
8. Climatic Conditions	1	8	8	8	8	8	8	8	8
9. Conformance to Environmental Conditions	2	7	14	7	14	7	14	7	14
10. Incentives	2	6	12	6	12	6	12	5	10
11. Proximity to Supply Industry	1	7	7	7	7	7	7	7	7
12. Procuring Senior Managers and Technical Staff	2	8	16	8	16	7	14	7	14
13. Communication Facilities	1	8	8	8	8	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	5	10	5	10	6	12	6	12
15. Utilization of Financing Means and Banking Services	1	5	5	5	5	6	6	6	6
16. Other (Security, Conformance to National Defence, etc.)	2	9	18	9	18	9	18	9	18
<b>TOTAL</b>			<b>179</b>		<b>179</b>		<b>173</b>		<b>171</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>B</b>		<b>B</b>		<b>B</b>		<b>B</b>

Table (cont'd)

Location Factors	Factor Weight	Liquid Detergents- Powdered Detergents		Nitrogen Minerals / Chemical Fertilizers		Plastic Sprinkling and Irrigation Equipment		PVC Joinery	
		Score	Factor Score	Score	Factor Score	Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	8	24	8	24	8	24	8	24
2. Proximity to Auxiliary Material and Raw Material Sources	2	7	14	6	12	7	14	7	14
3. Transport	1	8	8	7	7	8	8	8	8
4. Labour	2	8	16	8	16	8	16	8	16
5. Energy, Fuel and Water	1	8	8	7	7	8	8	8	8
6. Land Cost, Topographic Structure and Construction Cost	1	7	7	7	7	7	7	7	7
7. Social and Cultural Environment	1	8	8	8	8	8	8	8	8
8. Climatic Conditions	1	8	8	8	8	8	8	8	8
9. Conformance to Environmental Conditions	2	5	10	4	8	7	14	7	14
10. Incentives	2	5	10	5	10	5	10	5	10
11. Proximity to Supply Industry	1	6	6	6	6	7	7	7	7
12. Procuring Senior Managers and Technical Staff	2	7	14	7	14	8	16	8	16
13. Communication Facilities	1	8	8	8	8	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	6	12	5	10	7	14	7	14
15. Utilization of Financing Means and Banking Services	1	6	6	5	5	7	7	7	7
16. Other (Security, Conformance to National Defence, etc.)	2	9	18	9	18	9	18	9	18
<b>TOTAL</b>			<b>177</b>		<b>168</b>		<b>187</b>		<b>187</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>B</b>		<b>B</b>		<b>B</b>		<b>B</b>

Table (cont'd)

Location Factors	Factor Weight	Plastic Dispensers, Bottles etc. Other Package Products		Plastic Boxes, Cases, Crates, etc.		Wheel Balancing Machines and Test Devices		Dialyzators	
		Score	Factor Score	Score	Factor Score	Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	8	24	8	24	7	21	7	21
2. Proximity to Auxiliary Material and Raw Material Sources	2	7	14	7	14	7	14	6	12
3. Transport	1	8	8	8	8	7	7	7	7
4. Labour	2	8	16	8	16	8	16	8	16
5. Energy, Fuel and Water	1	8	8	8	8	8	8	8	8
6. Land Cost, Topographic Structure and Construction Cost	1	7	7	7	7	7	7	7	7
7. Social and Cultural Environment	1	8	8	8	8	8	8	8	8
8. Climatic Conditions	1	8	8	8	8	8	8	8	8
9. Conformance to Environmental Conditions	2	7	14	7	14	7	14	7	14
10. Incentives	2	5	10	5	10	5	10	6	12
11. Proximity to Supply Industry	1	7	7	7	7	7	7	7	7
12. Procuring Senior Managers and Technical Staff	2	7	14	7	14	7	14	6	12
13. Communication Facilities	1	8	8	8	8	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	7	14	7	14	6	12	6	12
15. Utilization of Financing Means and Banking Services	1	7	7	7	7	6	6	6	6
16. Other (Security, Conformance to National Defence, etc.)	2	9	18	9	18	9	18	9	18
<b>TOTAL</b>			<b>185</b>		<b>185</b>		<b>178</b>		<b>176</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>B</b>		<b>B</b>		<b>B</b>		<b>B</b>

Table (cont'd)

Location Factors	Factor Weight	Plastic Oxygen Masks, Plastic Nasal Oxygen Cannula, Nebulizer Sets		Panel Radiators		Motor Road Vehicles, etc. Iron/Steel Forged Appurtenances and Parts for Vehicles		Aluminium Conductors	
		Score	Factor Score	Score	Factor Score	Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	7	21	8	24	8	24	7	21
2. Proximity to Auxiliary Material and Raw Material Sources	2	6	12	7	14	7	14	8	16
3. Transport	1	7	7	7	7	8	8	7	7
4. Labour	2	8	16	8	16	8	16	8	16
5. Energy, Fuel and Water	1	8	8	8	8	8	8	8	8
6. Land Cost, Topographic Structure and Construction Cost	1	7	7	7	7	8	8	8	8
7. Social and Cultural Environment	1	8	8	8	8	8	8	8	8
8. Climatic Conditions	1	8	8	8	8	8	8	8	8
9. Conformance to Environmental Conditions	2	7	14	7	14	7	14	8	16
10. Incentives	2	6	12	6	12	6	12	6	12
11. Proximity to Supply Industry	1	7	7	7	7	8	8	7	7
12. Procuring Senior Managers and Technical Staff	2	6	12	7	14	8	16	8	16
13. Communication Facilities	1	8	8	8	8	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	6	12	7	14	7	14	7	14
15. Utilization of Financing Means and Banking Services	1	6	6	7	7	7	7	7	7
16. Other (Security, Conformance to National Defence, etc.)	2	9	18	9	18	9	18	9	18
<b>TOTAL</b>			<b>176</b>		<b>186</b>		<b>191</b>		<b>190</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>B</b>		<b>B</b>		<b>B</b>		<b>B</b>

Table (cont'd)

Location Factors	Factor Weight	Aluminium Handrail Systems		Prefabricated Structural Metal Components		Solar Energy Systems (Collectors)		Various Agricultural Equipment and Machines	
		Score	Factor Score	Score	Factor Score	Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	7	21	8	24	8	24	9	27
2. Proximity to Auxiliary Material and Raw Material Sources	2	8	16	7	14	8	16	8	16
3. Transport	1	7	7	7	7	8	8	8	8
4. Labour	2	8	16	8	16	8	16	8	16
5. Energy, Fuel and Water	1	8	8	8	8	8	8	8	8
6. Land Cost, Topographic Structure and Construction Cost	1	8	8	8	8	8	8	8	8
7. Social and Cultural Environment	1	8	8	8	8	8	8	8	8
8. Climatic Conditions	1	8	8	8	8	8	8	8	8
9. Conformance to Environmental Conditions	2	8	16	7	14	8	16	8	16
10. Incentives	2	6	12	6	12	7	14	6	12
11. Proximity to Supply Industry	1	7	7	7	7	8	8	8	8
12. Procuring Senior Managers and Technical Staff	2	8	16	7	14	8	16	8	16
13. Communication Facilities	1	8	8	8	8	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	7	14	7	14	8	16	8	16
15. Utilization of Financing Means and Banking Services	1	7	7	7	7	9	9	8	8
16. Other (Security, Conformance to National Defence, etc.)	2	9	18	9	18	9	18	9	18
<b>TOTAL</b>			<b>190</b>		<b>187</b>		<b>201</b>		<b>201</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>B</b>		<b>B</b>		<b>A</b>		<b>A</b>

**Table (cont'd)**

Location Factors	Factor Weight	Water Treatment and Mineralization Device		Milling and Flour Sifting Machines		Chocolate and Confectionery Machines, Moulds		Plastic, Aluminium, Metal Moulds	
		Score	Factor Score	Score	Factor Score	Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	7	21	8	24	9	27	8	24
2. Proximity to Auxiliary Material and Raw Material Sources	2	7	14	7	14	8	16	8	16
3. Transport	1	8	8	8	8	9	9	8	8
4. Labour	2	8	16	8	16	8	16	8	16
5. Energy, Fuel and Water	1	8	8	8	8	8	8	8	8
6. Land Cost, Topographic Structure and Construction Cost	1	8	8	8	8	8	8	8	8
7. Social and Cultural Environment	1	8	8	8	8	9	9	8	8
8. Climatic Conditions	1	8	8	8	8	9	9	8	8
9. Conformance to Environmental Conditions	2	8	16	8	16	8	16	8	16
10. Incentives	2	6	12	6	12	7	14	6	12
11. Proximity to Supply Industry	1	8	8	8	8	8	8	8	8
12. Procuring Senior Managers and Technical Staff	2	7	14	8	16	8	16	8	16
13. Communication Facilities	1	8	8	8	8	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	7	14	7	14	8	16	8	16
15. Utilization of Financing Means and Banking Services	1	7	7	7	7	8	8	8	8
16. Other (Security, Conformance to National Defence, etc.)	2	9	18	9	18	9	18	9	18
<b>TOTAL</b>			<b>188</b>		<b>193</b>		<b>206</b>		<b>198</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>B</b>		<b>B</b>		<b>A</b>		<b>B</b>

**Table (cont'd)**

Location Factors	Factor Weight	Vehicle Headlights and Signalization Components		Plug Cables, Insulated Power Cables		Ready-Mixed Concrete		Bricks and Hollow Tiles	
		Score	Factor Score	Score	Factor Score	Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	8	24	8	24	7	21	7	21
2. Proximity to Auxiliary Material and Raw Material Sources	2	8	16	8	16	7	14	7	14
3. Transport	1	8	8	8	8	7	7	7	7
4. Labour	2	8	16	8	16	8	16	8	16
5. Energy, Fuel and Water	1	8	8	8	8	8	8	8	8
6. Land Cost, Topographic Structure and Construction Cost	1	8	8	8	8	8	8	8	8
7. Social and Cultural Environment	1	8	8	8	8	8	8	8	8
8. Climatic Conditions	1	8	8	8	8	8	8	8	8
9. Conformance to Environmental Conditions	2	8	16	8	16	7	14	7	14
10. Incentives	2	6	12	6	12	6	12	6	12
11. Proximity to Supply Industry	1	8	8	8	8	8	8	8	8
12. Procuring Senior Managers and Technical Staff	2	8	16	8	16	8	16	8	16
13. Communication Facilities	1	8	8	8	8	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	7	14	7	14	7	14	7	14
15. Utilization of Financing Means and Banking Services	1	7	7	7	7	7	7	7	7
16. Other (Security, Conformance to National Defence, etc.)	2	9	18	9	18	9	18	9	18
<b>TOTAL</b>			<b>195</b>		<b>195</b>		<b>187</b>		<b>187</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>B</b>		<b>B</b>		<b>B</b>		<b>B</b>

**Table (cont'd)**

Location Factors	Factor Weight	Pumice Blocks and Concrete Parquets		Prefabricated Structural Components		Thermally Insulated Glass, Tempered Glass		Engines, Parts and Accessories for Motor Road Vehicles	
		Score	Factor Score	Score	Factor Score	Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	8	24	8	24	8	24	9	27
2. Proximity to Auxiliary Material and Raw Material Sources	2	7	14	7	14	8	16	8	16
3. Transport	1	7	7	8	8	8	8	8	8
4. Labour	2	8	16	8	16	8	16	8	16
5. Energy, Fuel and Water	1	8	8	8	8	8	8	8	8
6. Land Cost, Topographic Structure and Construction Cost	1	8	8	8	8	8	8	8	8
7. Social and Cultural Environment	1	8	8	8	8	8	8	8	8
8. Climatic Conditions	1	8	8	8	8	8	8	8	8
9. Conformance to Environmental Conditions	2	7	14	7	14	9	18	8	16
10. Incentives	2	6	12	6	12	7	14	7	14
11. Proximity to Supply Industry	1	8	8	8	8	8	8	8	8
12. Procuring Senior Managers and Technical Staff	2	8	16	8	16	8	16	8	16
13. Communication Facilities	1	8	8	8	8	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	7	14	7	14	8	16	8	16
15. Utilization of Financing Means and Banking Services	1	7	7	7	7	8	8	8	8
16. Other (Security, Conformance to National Defence, etc.)	2	9	18	9	18	9	18	9	18
<b>TOTAL</b>			<b>190</b>		<b>191</b>		<b>202</b>		<b>203</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>B</b>		<b>B</b>		<b>A</b>		<b>A</b>

Table (cont'd)

Location Factors	Factor Weight	Loaders, Trailers, Dampers, Body Sheets		Commercial Vehicle Air-Conditioners and Cooling Systems, Machine Cooling Systems		Wheel Rims, Trailer Swivel Jacks, Trailer Lifts		Axle Gear, Engine, Gear Box and Brake Replacement Parts	
		Score	Factor Score	Score	Factor Score	Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	8	24	9	27	8	24	8	24
2. Proximity to Auxiliary Material and Raw Material Sources	2	8	16	8	16	8	16	8	16
3. Transport	1	8	8	8	8	8	8	8	8
4. Labour	2	8	16	8	16	8	16	8	16
5. Energy, Fuel and Water	1	8	8	8	8	8	8	8	8
6. Land Cost, Topographic Structure and Construction Cost	1	8	8	8	8	8	8	8	8
7. Social and Cultural Environment	1	8	8	8	8	8	8	8	8
8. Climatic Conditions	1	8	8	8	8	8	8	8	8
9. Conformance to Environmental Conditions	2	8	16	8	16	7	14	7	14
10. Incentives	2	7	14	7	14	7	14	7	14
11. Proximity to Supply Industry	1	8	8	8	8	8	8	8	8
12. Procuring Senior Managers and Technical Staff	2	8	16	8	16	8	16	8	16
13. Communication Facilities	1	8	8	8	8	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	7	14	8	16	7	14	7	14
15. Utilization of Financing Means and Banking Services	1	7	7	8	8	7	7	7	7
16. Other (Security, Conformance to National Defence, etc.)	2	9	18	9	18	9	18	9	18
<b>TOTAL</b>			<b>197</b>		<b>203</b>		<b>195</b>		<b>195</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>B</b>		<b>A</b>		<b>B</b>		<b>B</b>

**Table (cont'd)**

Location Factors	Factor	Tractor Parts and Accessories.	
	Weight	Score	Factor Score
1. Proximity to Market	3	8	24
2. Proximity to Auxiliary Material and Raw Material Sources	2	8	16
3. Transport	1	8	8
4. Labour	2	8	16
5. Energy, Fuel and Water	1	8	8
6. Land Cost, Topographic Structure and Construction Cost	1	8	8
7. Social and Cultural Environment	1	8	8
8. Climatic Conditions	1	8	8
9. Conformance to Environmental Conditions	2	7	14
10. Incentives	2	7	14
11. Proximity to Supply Industry	1	8	8
12. Procuring Senior Managers and Technical Staff	2	8	16
13. Communication Facilities	1	8	8
14. Total Investment Value, Operating Capital Requirement	2	7	14
15. Utilization of Financing Means and Banking Services	1	7	7
16. Other (Security, Conformance to National Defence, etc.)	2	9	18
<b>TOTAL</b>			<b>195</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>B</b>

**Table 123: Assessment of Proposed Investments in Services Sector With Respect to Location Factors**

Location Factors	Factor Weight	Cold storages		Bean packaging and storage		Seed storage, sorting and packaging		Grain warehousing services	
		Score	Factor Score	Score	Factor Score	Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	9	27	9	27	8	24	8	24
2. Proximity to Auxiliary Material and Raw Material Sources	2	9	18	8	16	8	16	8	16
3. Transport	1	9	9	8	8	8	8	8	8
4. Labour	2	8	16	8	16	8	16	8	16
5. Energy, Fuel and Water	1	8	8	8	8	8	8	8	8
6. Land Cost, Topographic Structure and Construction Cost	1	8	8	8	8	8	8	8	8
7. Social and Cultural Environment	1	8	8	8	8	8	8	8	8
8. Climatic Conditions	1	8	8	8	8	8	8	8	8
9. Conformance to Environmental Conditions	2	9	18	8	16	8	16	8	16
10. Incentives	2	7	14	7	14	7	14	7	14
11. Proximity to Supply Industry	1	8	8	8	8	9	9	9	9
12. Procuring Senior Managers and Technical Staff	2	8	16	8	16	8	16	8	16
13. Communication Facilities	1	8	8	8	8	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	8	16	8	16	8	16	8	16
15. Utilization of Financing Means and Banking Services	1	8	8	8	8	8	8	8	8
16. Other (Security, Conformance to National Defence, etc.)	2	9	18	9	18	9	18	9	18
<b>TOTAL</b>			<b>208</b>		<b>203</b>		<b>201</b>		<b>201</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>A</b>		<b>A</b>		<b>A</b>		<b>A</b>

**Table (cont'd)**

Location Factors	Factor Weight	Packaging and labelling services		Dormitories		Five-star hotels		Four-star hotels	
		Score	Factor Score	Score	Factor Score	Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	9	27	9	27	9	27	9	27
2. Proximity to Auxiliary Material and Raw Material Sources	2	8	16	9	18	9	18	9	18
3. Transport	1	8	8	9	9	8	8	8	8
4. Labour	2	8	16	8	16	8	16	8	16
5. Energy, Fuel and Water	1	8	8	8	8	8	8	8	8
6. Land Cost, Topographic Structure and Construction Cost	1	8	8	7	7	8	8	8	8
7. Social and Cultural Environment	1	8	8	8	8	8	8	8	8
8. Climatic Conditions	1	8	8	8	8	8	8	8	8
9. Conformance to Environmental Conditions	2	8	16	9	18	7	14	7	14
10. Incentives	2	7	14	7	14	6	12	6	12
11. Proximity to Supply Industry	1	9	9	8	8	8	8	8	8
12. Procuring Senior Managers and Technical Staff	2	8	16	8	16	8	16	8	16
13. Communication Facilities	1	8	8	8	8	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	8	16	8	16	6	12	6	12
15. Utilization of Financing Means and Banking Services	1	8	8	8	8	6	6	6	6
16. Other (Security, Conformance to National Defence, etc.)	2	9	18	9	18	9	18	9	18
<b>TOTAL</b>			<b>204</b>		<b>207</b>		<b>195</b>		<b>195</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>A</b>		<b>A</b>		<b>B</b>		<b>B</b>

**Table (cont'd)**

Location Factors	Factor	Surgical hospital services		Sterilization of medical wastes		Plastic recovery	
	Weight	Score	Factor Score	Score	Factor Score	Score	Factor Score
1. Proximity to Market	3	9	27	8	24	8	24
2. Proximity to Auxiliary Material and Raw Material Sources	2	8	16	8	16	8	16
3. Transport	1	8	8	8	8	8	8
4. Labour	2	8	16	8	16	8	16
5. Energy, Fuel and Water	1	8	8	8	8	8	8
6. Land Cost, Topographic Structure and Construction Cost	1	7	7	7	7	8	8
7. Social and Cultural Environment	1	8	8	8	8	8	8
8. Climatic Conditions	1	8	8	8	8	8	8
9. Conformance to Environmental Conditions	2	8	16	8	16	7	14
10. Incentives	2	7	14	7	14	6	12
11. Proximity to Supply Industry	1	8	8	8	8	8	8
12. Procuring Senior Managers and Technical Staff	2	8	16	8	16	8	16
13. Communication Facilities	1	8	8	8	8	8	8
14. Total Investment Value, Operating Capital Requirement	2	6	12	6	12	7	14
15. Utilization of Financing Means and Banking Services	1	6	6	6	6	7	7
16. Other (Security, Conformance to National Defence, etc.)	2	9	18	9	18	9	18
<b>TOTAL</b>			<b>196</b>		<b>193</b>		<b>193</b>
<b>Relative Superiority Group Involving the Investment</b>			<b>B</b>		<b>B</b>		<b>B</b>

Estimated capacity, fixed investment value and employment volumes relating to the fields of investment suggested by taking into account the economic, social and natural conditions of the Konya region are presented in the table below:

**Table 124: Estimated Value of Proposed Investments & Employment Facts**

Sectors	Capacity	Fixed Investment Value (TL)	Employment (Persons)
<b>MINING</b>			
Marble Extraction and Processing	IFB	IFB	IFB
Lignite Extraction	IFB	IFB	IFB
Sand-Gravel Extraction and Processing	230.400 tons/year	3,047,500	5
Bentonite Extraction	IFB	IFB	IFB
Clay Extraction	IFB	IFB	IFB
Kaolinite Extraction	IFB	IFB	IFB
<b>ENERGY</b>			
Wind Power Station (WPS)	Potential total installed power 1,860 MW	IFB	IFB
Solar Energy Station (SES)	Potential total installed power 92 MW	IFB	IFB
<b>AGRICULTURE AND STOCK FARMING</b>			
Greenhousing	8.000 m <sup>2</sup>	7,700,000	45
Mixed Fodder Production, Fodder Crop Cultivation	Mixed fodder 2 tons/day Fodder crop cultivation 75,000 m <sup>2</sup>	IFB	IFB
Dairying	300 units	5,250,000	30
Livestock Breeding	650 units/period	9,250,000	30
Ovine Breeding	2.500 units/period	2,350,000	25
<b>MANUFACTURING INDUSTRY</b>			
Milk and milk products	5.000 tons/year	6,700,000	25
Red meat and meat products	2.000 tons/year	1,650,000	22
White meat and meat products	4.800 tons/year	670.000	10
Chocolate and Cacao products, Various Candies,	Chocolate and cacao products 1,000 tons/year Various candies 2,500 tons/year	4,100,000	35
Vegetable and Fruit Drying	10 tons/day	1,200,000	15
Vegetable and Fruit Juices	1.500 tons/year	1,200,000	15
Footwear	240.000 pairs/year	2,135,000	25
Production of Bags, Pursues, etc.	95.000 pcs/year	1,600,000	85
Corrugated cardboard, cardbox production	Corrugated cardboard 19,800 tons/year Cardbox 16,000 tons/year	43,500,000	200
Foldable Cardboard, Box from Non-Corrugated Paper / Cardbox	610 tons/year	1,400,000	15
Various Adhesives, Gas Concrete, Chemical Anchors, Polyurethane Mastics	Adhesives 1.100 tons/year Gas concrete 60,000 tons/year Chemical anchors 600 kg/year Polyurethane mastic 1,100 tons/year	19,400,000	35

**Table 124 (cont'd)**

Sectors	Capacity	Fixed Investment Value (TL)	Employment (Persons)
CMC-Carboxymethyl-Cellulose,	1.800 tons/year	3,900,000	30
Liquid detergents, powdered detergents	Liquid detergents 10,000 tons/year Powdered detergents 2,000 tons/year	1,250,000	40
Nitrogen Minerals / Chemical Fertilizers	22 tons/year	830.000	20
Plastic Sprinkling and Irrigation Equipment	1,000,000 pcs/year	1,000,000	15
PVC Joinery	21,500 m <sup>2</sup> /year	750.000	8
Plastic Dispensers, Bottles etc. Other Package Products	Plastic dispensers, bottles 5,000,000 pcs/year Package products 35,000 tons/year	850.000	10
Plastic Boxes, Cases, Crates, etc.	550 tons/year	550.000	10
Wheel Balancing Machines and Test Devices	3.650 pcs/year	3,320,000	30
Dialyzators	540.000 pcs/year	8,800,000	60
Plastic Oxygen Masks, Plastic Nasal Oxygen Cannula, Nebulizer Sets	Plastic oxy. masks 1,200,000 pcs/year Plastic oxy. cannula 1,200,000 pcs/year Nebulizer sets 1,200,000 pcs/year	575.500	10
Panel Radiators	206.500 pcs/year	10,800,000	25
Motor Road Vehicles, etc. Iron/Steel Forged Appurtenances and Parts for Vehicles	5.000 tons/year	4,915,000	25
Aluminium Conductors	6.000 tons/year	24,100,000	40
Aluminium Handrail Systems	950 tons/year	5,250,000	30
Prefabricated Structural Metal Components	240,000 m <sup>2</sup> /year	3,650,000	40
Solar Energy Systems (Collectors)	750 pcs/year	525.000	20
Various Agricultural Equipment and Machines	25.000 pcs/year	8,000,000	15
Water Treatment and Mineralization Device	150.000 pcs/year	5,355,000	20
Milling and Flour Sifting Machines	400 pcs/year	4,250,000	40
Chocolate and Confectionery Machines, Moulds	Chocolate and Candy Machines 1.500 pcs/year Chocolate and Candy Moulds 100.000 pcs/year	3,300,000	15
Plastic, Aluminium, Metal Moulds	Plastic moulds 70 pcs/year Aluminium moulds 30 pcs/year Metal moulds 20 pcs/year	1,115,000	20
Vehicle Headlights and Signalization Components	700.000 pcs/year	7,550,000	15
Plug Cables, Insulated Power Cables	Plug cables 23,500,000 pcs/year Insulated power cables 10,000 tons/year	25,350,000	35
Ready-Mixed Concrete	185,000 m <sup>3</sup> /year	3,100,000	12
Bricks and Hollow Tiles	2,350,000 pcs/year	1,650,000	10
Pumice Blocks and Concrete Parquets	4,200,000 pcs/year	4,850,000	10

**Table 124 (cont'd)**

<b>Sectors</b>	<b>Capacity</b>	<b>Fixed Investment Value (TL)</b>	<b>Employment (Persons)</b>
Prefabricated Structural Components	25.000 pcs/year	2,850,000	25
Thermally Insulated Glass, Tempered Glass	Thermally Insulated Glass 51,000 m <sup>2</sup> /year Tempered Glass 230,000 m <sup>2</sup> /year	2,100,000	15
Engines, Parts and Accessories for Motor Road Vehicles	Brake drums 10.000 pcs/year Brake hubs 10.000 pcs/year Brake discs 10.000 pcs/year Flywheels 3.000 pcs/year	28,000,000	40
Loaders, Trailers, Dampers, Body Sheets	2.550 tons/year	580.000	6
Commercial Vehicle Air-Conditioners and Cooling Systems, Machine Cooling Systems	Commercial vehicle air-conditioners 1,000 pcs/year Machine cooling systems 200 pcs/year Refrigerators 500 pcs/year	3,300,000	30
Wheel Rims, Trailer Swivel Jacks, Trailer Lifts	Wheel Rims 5.000 pcs/year Trailer Swivel Jacks 25,000 pcs/year Trailer Lifts 35,000 pcs/year	4,025,000	10
Axle Gear, Engine, Gear Box and Brake Replacement Parts	32 tons/year	820.000	6
Tractor Parts and Accessories.	Tractor drums 240,000 pcs/year Tractor front wheel hubs 40,000 pcs/year Tractor exhausts 60,000 pcs/year Tractor shift covers 3,500 pcs/year Tractor dust boots 77,000 pcs/year Tractor air filters 70,000 pcs/year	4,900,000	110
<b>SERVICES</b>			
Cold storages	1.100 m <sup>2</sup>	1,775,000	10
Bean packaging and storage	11.900 tons/year	580.000	10
Seed storage, sorting and packaging	900 tons/year	3,400,000	20
Grain warehousing services	34.500 tons/year	2,450,000	5
Packaging and labelling services	10.200 tons/year	1,300,000	20
Dormitories	700 students	4,400,000	30
Five-star hotels	135 rooms 270 beds	30,000,000	70
Four-star hotels	145 rooms 290 beds	20,000,000	50
Surgical hospital services	32 beds	30,000,000	128
Sterilization of medical wastes	2.160 tons/year	1,640,000	15
Plastic recovery	900 tons/year	2,400,000	10

**Note: Capacity, total investment value and employment volumes presented for each field of investment suggested are just for opinion purposes, and represent estimated figures. Therefore, variations may occur in capacity, costs and employment figures during the feasibility phase.**

**IFB: to be identified during the feasibility phase.**

#### **IV. DISCUSSION AND CONCLUSION**

One of the major conditions of economic development in a region is to make investments rationally in most efficient fields. Efficient and productive utilization of production IFBtors owes to the making of essential investments at the right time. One of the key IFBtors of development is to allocate savings, in other words financial resources to profitable and efficient fields.

The potential for a region to be a centre of attraction for investors depends on the development of the country and region, and also on the particular location and conditions of that region. Development level of residential areas is shaped through their own internal dynamics and/or the public support. IFBtors constituting the development dynamics of a region are generally composed of the natural infrastructure, physical infrastructure, corporate infrastructure and human infrastructure. The socioeconomic development level is boosted to the extent they complement each other and flourish.

As the first step in routing financial resources to profitable and efficient areas and utilizing investment projects that would improve the socioeconomic development level of the region, surveying appropriate fields of investment is of particular essence. Key purpose of the research for appropriate fields of investment is to suggest appropriate fields towards domestic and foreign trade in harmony with regional resources and that would contribute to regional development by taking into account anticipated developments throughout the region in the short and long term.

Key analysis of appropriate fields of investment is based upon the location analysis. Location IFBtors cover all spatial aspects having impact on the investment and operation costs, sales revenue and capital structure of the production when the latter is positioned in a particular geographical location. In an investment project, the location should have all the characteristics that would enable the business to satisfy particular conditions. For this

purpose, three key economical factors, namely productivity, cost-effectiveness and profitability should be taken into account in identifying the location of the business.

Konya stands as a major production and trade centre providing accessibility between northern and southern, and eastern and western provinces. The province offers enriched agricultural and stock production as well as a sophisticated manufacturing industry thanks to its arable lands, and promises further development thanks to its favourable geographical location. In the study, it is observed that, an assessment across socio-economical indicators reveals that Konya is above the country average by many of the indicators, and that it is ranked high in this respect compared to other provinces of the country. In the New Incentives System, Konya is classified among provinces of 2<sup>nd</sup> level of development.

The province's natural resources, accessibility advantages, experience in domestic and foreign trade based on a vast spectrum of production ranging from agriculture to the manufacturing industry, relative strengths and sophisticated socioeconomic level, human resources, and infrastructure suitable for new investments are what make us think that the province will keep its position as a centre of attraction for new investments and investors in upcoming periods as well.

In this study, suggestions for the fields of investment considered feasible in the short and medium term where new employment areas may be created have been developed. 69 fields of investment have been suggested by considering the natural, social and economic conditions as well as the potential development horizons of the province. Of them, 19 are involved in Group A, and 50 are in Group B.

Of the fields of investment involved in Group A and classified among seamless fields of investment, 3 concern the agriculture and stock farming sector, 10 concern the manufacturing industry sector and 6 concern the services sector.

Of fields of investment classified under group B dependent on particular conditions and background preparations, 6 concern the mining sector, 2 concern the energy sector, 2 concern the agriculture and stock farming sector, 35 concern the manufacturing industry and 5 concern the services sector.

Fields of investment suggested as a result of researches and assessments conducted by taking into account the economic, social and natural conditions as well as the development dynamics of the province are just for suggestion purposes, and the feasibility of these fields of investments will be identified through feasibility studies where each field will be assessed against technical, economic and financial IFBs. Rate of realization of investment suggestions in question is certainly dependent on motivating potential investors towards investing in the Konya region, and routing savings to investments to a sufficient extent.

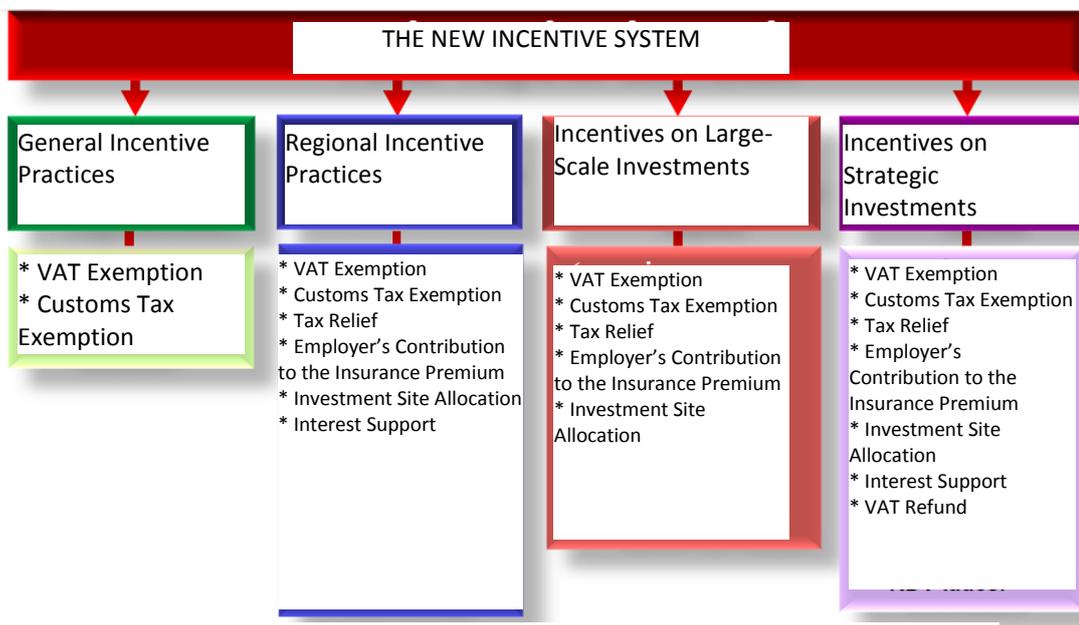
## ANNEX: INCENTIVES TO BE UTILIZED BY KONYA UNDER THE NEW INCENTIVES SYSTEM

The framework of public subsidies granted to investments in Turkey has been structured with the new incentives package introduced by the Minister of Economy on 05.04.2012 in the form of General Framework of State Aids in Investments.

The New Incentives System has been presented under four key chapters, namely

- General incentive practices,
- Regional incentive practices,
- Incentives on high-scale investments,
- Incentives on strategic investments.

FIGURE: THE NEW INCENTIVES SYSTEM



\* Income Tax Withholding Support and Worker's Contribution to the Insurance Premium Subsidy for the 6<sup>th</sup> Region

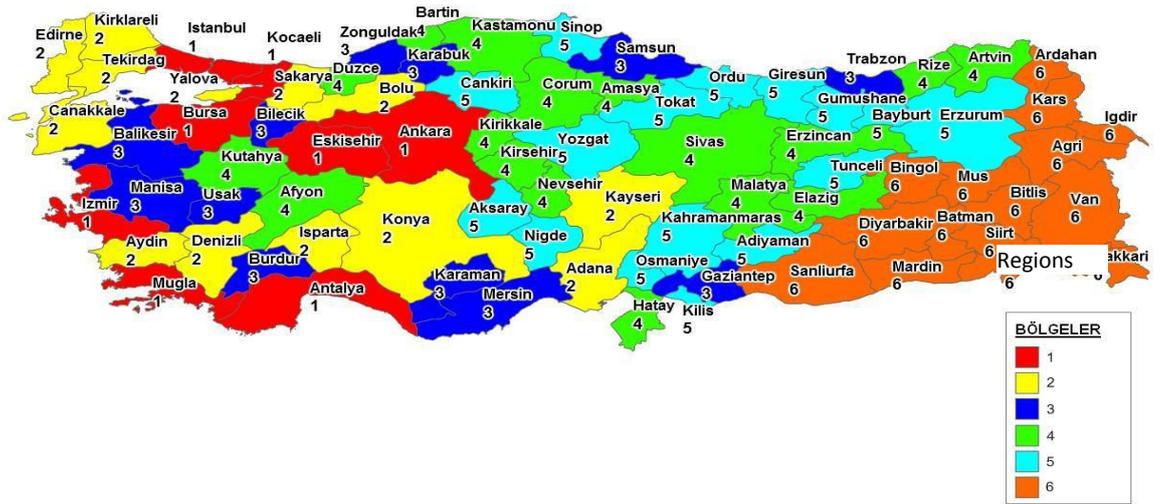
### 1. General Incentive Practices

Within the scope of general incentive practices, investments not classified under the fields to which no incentive has been allocated, and other incentive practices regardless of the region, and satisfying the minimum fixed investment value requirement will be supported through **VAT Exemption** and **Customs Exemption** subsidies. And Konya is involved within the scope of the general incentives system.

### 2. Regional Incentive Practices

In regional incentive practices, a switch is made to a new regional map-province based incentive system whereby the country is divided into 6 regions according to the socioeconomic development level.

MAP: REGIONS ACCORDING TO THE NEW INCENTIVE SYSTEM



Source: Ministry of Economy.

One of the TR52 Level 2 Region provinces, Konya is involved in the 2<sup>nd</sup> region where provinces of 2<sup>nd</sup> degree of development are classified. On the other hand, Karaman, the other province of the TR52 Level 2 Region, is involved in the 3<sup>rd</sup> region where provinces of 3<sup>rd</sup> degree of development are classified.

TABLE: REGIONS ACCORDING TO THE NEW INCENTIVES SYSTEM

Region 1	Region 2	Region 3	Region 4	Region 5	Region 6
Ankara	Adana	Balıkesir	Afyonkarahisar	Adıyaman	Ağrı
Antalya	Aydın	Bilecik	Amasya	Aksaray	Ardahan
Bursa	Bolu	Burdur	Artvin	Bayburt	Batman
Eskişehir	Çanakkale	Gaziantep	Bartın	Çankırı	Bingöl
Istanbul	Denizli	Karabük	Çorum	Erzurum	Bitlis
İzmir	Edirne	Karaman	Düzce	Giresun	Diyarbakır
Kocaeli	Isparta	Manisa	Elazığ	Gümüşhane	Hakkari
Muğla	Kayseri	Mersin	Erzincan	Kahramanmaraş	Iğdır
	Kırklareli	Samsun	Hatay	Kilis	Kars
	<b>Konya</b>	Trabzon	Kastamonu	Niğde	Mardin
	Sakarya	Uşak	Kırıkkale	Ordu	Muş
	Tekirdağ	Zonguldak	Kırşehir	Osmaniye	Siirt
	Yalova		Kütahya	Sinop	Şanlıurfa
			Malatya	Tokat	Şırnak
			Nevşehir	Tunceli	Van
			Rize	Yozgat	
			Sivas		

Source: Ministry of Economy

## Ratios and Periods Amended in Subsidies under Incentive Regional Practices

In regional incentive practices; tax relief, employer's contribution to insurance premium, and interest support represent the amended subsidies.

### Tax Relief:

TABLE: TAX RELIEF, RATE OF CONTRIBUTION TO INVESTMENT

REGION	RATE OF CONTRIBUTION TO INVESTMENT (%)			
	Regional Incentive Practices		Incentives for High-Scale Investments	
	Investments initiated before 31.12.2013	Investments initiated after 01.01.2014	Investments initiated before 31.12.2013	Investments initiated after 01.01.2014
I	15	10	25	20
II	20	15	30	25
III	25	20	35	30
IV	30	25	40	35
V	40	30	50	40
VI	50	35	60	45

Source: Ministry of Economy

The tax relief subsidy is exclusively applied to income yielded by investments subject to the incentive certificate. For companies investing in 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> regions, particular portion of the investment contribution will apply upon the income yielded by all operations throughout the investment period. Such practice also applies to Konya that is involved in the 2<sup>nd</sup> region.

TABLE: TAX RELIEF

TAX RELIEF IN REGIONAL INCENTIVE PRACTICES					
Region	Contribution to Investment (%)	Tax Relief Rate (%)	Rate of Contribution to Investment (%)		
			Applicable to the Operating/Investment Period		
			Investment Period	Operating Period	
I	15	50	0	100	
II (Konya)	20	55	10	90	
III	25	60	20	80	
IV	30	70	30	70	
V	40	80	50	50	
VI	50	90	80	20	

TAX RELIEF IN INCENTIVE PRACTICES FOR HIGH-SCALE INVESTMENTS					
Region	Contribution to Investment (%)	Tax Relief Rate (%)	Rate of Contribution to Investment (%)		
			Applicable to the Operating/Investment Period		
			Investment Period	Operating Period	
I	25	50	0	100	
II (Konya)	30	55	10	90	
III	35	60	20	80	
IV	40	70	30	70	
V	50	80	50	50	
VI	60	90	80	20	

Source: Ministry of Economy

For investments to be made in Konya, tax relief on regional incentive practices is presented as follows based on ratios applying to the 2<sup>nd</sup> region: Ratio of contribution to investment is 20% and tax relief ratio is 55%; ratio of contribution to investment to be applied during the investment period is 10% and ratio of contribution to investment during the operating period is 90%.

For high-scale investments to be made in Konya, tax relief on regional incentive practices is presented as follows based on ratios applying to the 2<sup>nd</sup> region: Ratio of contribution to investment is 30% and tax relief ratio is 55%; ratio of contribution to investment to be applied during the investment period is 10% and ratio of contribution to investment during the operating period is 90%.

A sample tax relief practice for Konya (at an investment value of TL 5,000) is presented below:

TABLE: SAMPLE TAX RELIEF PRACTICE FOR KONYA

<b>TAX RELIEF PRACTICE</b>			
Investment Value (Thousand TL)			5.000
Tax Relief (%)			55
Contribution to Investment (%)			20
Available Tax Relief (Thousand TL)			1.000
- In the Investment Period (Thousand TL)	(10%)		100
- In the Operating Period (Thousand TL)	(90%)		900
Corporation/income tax to be applied until the rate of contribution to investment is reached	9%	(rate of tax relief 11%)	
<b>TAX RELIEF PRACTICE - ORGANIZED INDUSTRIAL ZONE</b>			
Investment Value (Thousand TL)			5.000
Tax Relief (%)			60
Contribution to Investment (%)			25
Available Tax Relief (Thousand TL)			1.250
- In the Investment Period (Thousand TL)	(20%)		250
- In the Operating Period (Thousand TL)	(80%)		1,000
Corporation/income tax to be applied until the rate of contribution to investment is reached	8%	(rate of tax relief 12%)	

Source: Ministry of Economy

## Subsidy for Employer's Contribution to the Insurance Premium

TABLE: SUBSIDY FOR EMPLOYER'S CONTRIBUTION TO THE INSURANCE PREMIUM

Region	Until 31.12.2013	As 01.01.2014	from	Ceiling of Contribution (Ratio to Fixed Investment %)	
				Regional Incentive Practices	Incentives for High-Scale Investments
I	2 years	-		10	3
II (Konya)	3 years	-		15	5
III	5 years	3 years		20	8
IV	6 years	5 years		25	10
V	7 years	6 years		35	11
VI*	10 years	7 years		50	15

\*Subsidy for the OIZ covered by the region shall be applied for a period of 12 years.

Source: Ministry of Economy

Konya will be eligible to the employer's contribution to insurance premium subsidy for a period of 3 years for all investments until 31.12.2013. Such subsidy will not be applied to the 2<sup>nd</sup> region where Konya is classified after the date of 01.01.2014. The subsidy ceiling for regional incentive practices is 15%, and subsidy ceiling for incentives on large-scale investments is 5%.

### Interest Subsidy, Income Tax Withholding Subsidy, Worker's Share in Insurance Premium Subsidy

The 2<sup>nd</sup> region in which Konya is involved according to the new incentive system is not eligible to the interest subsidy on loans. Likewise, income tax withholding subsidy, and worker's contribution to insurance premium subsidy are also not granted to the 2<sup>nd</sup> Region and therefore to Konya.

FIGURE: REGIONAL INCENTIVE PRACTICE

		I	II	III	IV	V	VI
SUBSIDIES							
Vat exemption		✓	✓	✓	✓	✓	✓
Customs tax exemption		✓	✓	✓	✓	✓	✓
Tax Relief	outside OSB	15	20	25	30	40	50
Ratio of Contribution to Investment(%)	within OIZ	20	25	30	40	50	55
Employer's contribution to insurance Premium (period validity of subsidy)	outside OSB	2 years	3 years	5 years	6 years	7 years	10 years
	within OSB	3 years	5 years	6 years	7 years	10 years	12 years
Investment site allocation		✓	✓	✓	✓	✓	✓
Interest support		No	No	✓	✓	✓	✓
Income tax withholding subsidy		No	No	No	No	No	10 years
Worker's contribution to insurance Premium (validity of subsidy)		No	No	No	No	No	10 years

Source: Ministry of Economy

**TABLE: SAMPLE INCENTIVE CERTIFICATE PRACTICE FOR KONYA**  
**(INVESTMENT VALUE: 5 MILLION TL, EMPLOYMENT: 40 PERSONS)**

Items of Subsidy	(Thousand TL)
Tax exemption	114
Customs tax exemption	70
Tax relief	1.000
Subsidy for Employer's Contribution to the Insurance Premium	248
Interest support	-
Allocation of Investment Site	250
Income Tax Withholding	-
Employee's Contribution to the Insurance Premium	-
<b>Total State Subsidy</b>	<b>1.682</b>
Subsidy Density	34

**Source: Ministry of Economy**

The table above presents as an example the subsidies to which an investment in Konya of an investment value of 5 million TL and an employment volume of 40 persons is eligible. As shown in the table, an investment of a value of 5 million TL is eligible to an VAT exemption of 114 thousand TL, a customs tax exemption of 70 thousand TL, tax relief of 1,000 thousand TL, employer's contribution to the insurance premium of 248 thousand TL, and investment site allocation of 250 thousand TL, summing a total state subsidy of 1,682 thousand TL.

#### **Priority Investments:**

In the new incentive system, in case investments to be made in priority areas concern the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> regions, they will be eligible to subsidies applicable to the 5<sup>th</sup> region. Priority investments to be made in Konya will be eligible to subsidies applicable to the 5<sup>th</sup> region. Priority fields of investment are as follows:

- Investments in mining,
- Investments in load and passenger transport on railway and seaway,
- Investments in test stations, wind tunnels and other IFBilities of similar nature,
- Tourism investments in zones designated as culture and tourism conservation & development areas,
- Private sector investments in primary, secondary and high school education,
- Investments in following fields with an invested sum exceeding 20 million TL:
  1. Investments in certain pharmaceuticals,
  2. Investments in defence industry.

Of priority fields of investment specified above, 28 regions have been designated as culture and tourism conservation and development regions specified under the article on tourism investments to be made in culture and tourism conservation and development regions. Since

Konya is not involved in such 28 regions, tourism investments to be made in Konya are not classified as priority fields of investment.

### **Clustering and R&D Investments:**

For the objectives of establishing regional incentive practices and investment basins as well as supporting clustering, investments for clustering and R&D have been defined as follows:

- Investments to be made in Organized Industrial Zones,
- Investments based in sectoral collaboration,
- Investments for the production of product developed through R&D projects supported by TUBITAK.

Investments involved in the category of clustering and R&D investments will be eligible to subsidies applicable to an intermediate lower region in terms of tax relief subsidy and the employer's contribution to the insurance premium subsidy. An clustering and R&D investment to be made in Konya will be subject to ratios and periods applicable to the 3<sup>rd</sup> Region in terms of tax relief subsidy and employer's contribution to the insurance premium subsidy.

Other major amendments to the regional incentive practice can be listed as follows:

- Iron ore and lignite coal investments will be supported within the scope of the regional incentive system.
- For ships to be built by shipyards, part of the employer's contribution to the insurance premium payable for the workers employed corresponding to the minimum wage will be met by the Ministry of Economy.

### **3. Incentives for High-Scale Investments**

High-scale investments that would boost technology and R&D capacity, and bring in competitive advantage in international arena shall be subsidized through the following incentives;

- VAT exemption,
- Customs tax exemption,
- Tax relief,
- Subsidy for Employer's Contribution to the Insurance Premium,
- Allocation of Investment Site

High-scale investment categories are provided in the following table:

**TABLE: HIGH-SCALE INVESTMENTS**

<b>Investment Categories</b>	<b>Minimum Fixed Investment Value (Million TL)</b>
Production of chemicals	200
Production of refined petroleum products	1.000
Investments for transport services through transit pipelines	50
Key industry investments for motor road vehicles	200
Supply industry investments for motor road vehicles	50
Investments for manufacturing railway and tramway locomotives and/or carriages	50
Investments for ports and port services	200
Investments for the electronics industry	50
Investments for the production of medical equipment, optical precision instruments	50
Investments for drug production	50
Investments for manufacturing air and space vehicles and/or parts	50
Investments for manufacturing machines (including electrical machines and devices)	50
Investments for metal production: Investments for manufacturing finished metal from ores and/or concentrates of metallic minerals under group IV/c specified in the Mining Law (including mining investments integrated into such facilities)	50

**Source: Ministry of Economy**

Subsidies to which large-scale investments to be made in Konya will be eligible are listed in the table below:

**TABLE: INCENTIVES FOR HIGH-SCALE INVESTMENTS IN KONYA**

<b>Items of Subsidy</b>	
Tax exemption	Yes
Customs tax exemption	Yes
Tax Relief Rate of Contribution to Investment (%) outside OIS	30
Tax Relief Rate of Contribution to Investment (%) within OIS	35
Subsidy for Employer's Contribution to the Insurance Premium (Term of Subsidy) outside OIS	3 years
Subsidy for Employer's Contribution to the Insurance Premium (Term of Subsidy) within OIS	5 years
Allocation of Investment Site	Yes
Interest support	No
Subsidy for Income Tax Withholding	No
Subsidy for Employee's Contribution to the Insurance Premium	No

**Source: Ministry of Economy**

As the above table reveals, subsidies granted to large-scale investments made in Konya are as follows:

- VAT relief and customs tax exemption practice,
- Tax relief contribution to investment ratio is 30% for investments outside the Organized Industrial Zone, and 35% for investments within the Organized Industrial Zone.
- Subsidy term for the employer's contribution to the insurance premium subsidy is 3 years for investments outside the Organized Industrial Zone, and 5 years for investments within the Organized Industrial Zone.
- Investment site allocation is available.
- Interest subsidy, income tax withholding subsidy and worker's contribution to insurance premium subsidy are not present.

#### **4. Incentives on Strategic Investments**

Strategic investments are defined as investments for the production of intermediate goods or products supplied through import at a rate above 50%. Energy investments to be realized exclusively for the purpose of meeting the energy demand of these investments are also classified as strategic investments.

Within the scope of the Input Supply Strategy through incentives on strategic investments, and Imports Map, the objective is to provide incentives on high-technology investments that are aimed at producing intermediate goods and products highly dependent on import for the goal of minimizing current deficit, and that carry high value added potential as well as the potential to boost international competitive strength.

Criteria for the assessment of strategic investments are as follows:

- Investments aimed at manufacturing intermediate goods or products with high import dependence,
- Investments with minimum invested sum of 50 million TL,

- Investments that concern the manufacturing of products imported at a rate more than 50%,
- Investments that produce a minimum added value of 40%,
- Investments for manufacturing products with a total import value of 50 million USD for the preceding year (this requirements does not apply to products not domestically manufactured).

Subsidies to which a strategic investment in Konya will be eligible are as follows:

**TABLE: INCENTIVES FOR STRATEGIC INVESTMENTS IN KONYA**

<b>Items of Subsidy</b>	
Tax exemption	Yes
Customs tax exemption	Yes
Tax Relief Rate of Contribution to Investment	50%
Term of Subsidy for Employer's Contribution to the Insurance Premium	7 years
Allocation of Investment Site	Yes
VAT exemption	For construction expenditures of investments exceeding the value of 500 million TL
Interest support	Up to 50 million TL subject to a limitation of 5% of the invested sum

**Source: Ministry of Economy**

As the table above reveals, strategic investments to be made in Konya are eligible to VAT exemption and customs tax exemption. In such sort of investments, the tax relief contribution to investment ratio is 50%, employer's contribution to the insurance term is 7 years, and an investment site allocation will be provided. Of other subsidies, VAT refund will be applied to the construction expenditures of investments with an invested sum exceeding 500 million TL, and the interest subsidy/support will be applied for a maximum amount of 50 million TL subject to a limitation of 5% of the invested sum.

The table below presents sample calculations of subsidies for two strategic investments. Of them the first has an invested sum of 50 million TL and concerns the employment of 100 persons, and the other has an invested sum of 500 million TL and concerns the employment of 1,000 persons:

**TABLE: EXAMPLE FOR A STRATEGIC INVESTMENT**

<b>Support Items (thousand TL)</b>	<b>Investment Value: 50 million TL Employment: 100 people</b>	<b>Investment Value: 500 million TL Employment: 1000 people</b>
Tax exemption	1.140	11.400
Customs tax exemption	700	7.000
VAT exemption	-	11.460
Tax relief	25.000	250.000
Employer's Contribution to the Ins. Prem.	1.445	14.448
Interest support	2.500	25.000
Allocation of Investment Site	2.500	25.000
Total State Subsidy	33.285	344.308
Support Density (%)	67	69

**Source: Ministry of Economy**

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# APPROPRIATE INVESTMENT AREAS FOR THE KONYA PROVINCE

**Project Coordinator** : Konya Chamber of Commerce  
**Contractor** : Development Bank of Turkiye

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