

**AN EVALUATION OF THE REGION APPROACH IN TURKEY  
IN THE LIGHT OF THE FUNCTIONAL REGION**

**A THESIS SUBMITTED TO  
THE GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES  
OF  
MIDDLE EAST TECHNICAL UNIVERSITY**

**BY**

**MERVE NUR YILDIRIM**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR  
THE DEGREE OF MASTER OF SCIENCE  
IN  
REGIONAL PLANNING IN CITY AND REGIONAL PLANNING**

**DECEMBER 2021**



Approval of the thesis:

**AN EVALUATION OF THE REGION APPROACH IN TURKEY  
IN THE LIGHT OF THE FUNCTIONAL REGION**

submitted by **MERVE NUR YILDIRIM ACAR** in partial fulfillment of the requirements for the degree of **Master of Science in Regional Planning in City and Regional Planning, Middle East Technical University** by,

Prof. Dr. Halil Kalıpçılar  
Dean, Graduate School of **Natural and Applied Sciences**

Prof. Dr. Serap Kayasü  
Head of the Department, **City and Regional Planning**

Assoc. Prof. Dr. Özgül Burcu Özdemir Sarı  
Supervisor, **City and Regional Planning, METU**

**Examining Committee Members:**

Prof. Dr. Emine Yetişkul Şenbil  
City and Regional Planning, METU

Assoc. Prof. Dr. Özgül Burcu Özdemir Sarı  
City and Regional Planning, METU

Assist. Prof. Dr. Esma Aksoy Khurami  
City and Regional Planning, Muğla Sıtkı Koçman University

Date: 02.12.2021

**I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.**

Name Last name: Merve Nur Yıldırım Acar

Signature:

## **ABSTRACT**

### **AN EVALUATION OF THE REGION APPROACH IN TURKEY IN THE LIGHT OF THE FUNCTIONAL REGION**

Yıldırım Acar, Merve Nur  
Master of Science, Regional Planning in City and Regional Planning  
Supervisor: Assoc. Prof. Dr. Özgül Burcu Özdemir Sarı

December 2021, 103 pages

Cities and regions are evolving primarily as a result of population increase. Thus, they need more complicated approaches and more functional solutions for the development process. In this respect, the functional region approach promises sustained socio-economic development with its well-designed principles. Principles of the approach are easy to adopt and flexible to practice in any region. Conversely, Turkey adopts an approach resulted from the EU harmonization process. In this approach, regions of the country are defined by NUTS2 regions formed only according to distance although Turkey needs an approach that considers socio-economic development because of its heterogeneous structure.

This study aims to clarify that the region approach of Turkey cannot succeed in sustaining regional development, ensuring aim-practice consistency and dealing with current challenges of regions. In this respect, the law of the current approach, socio-economic development levels of regions and changes in population, employment and unemployment rates, migration velocity, net migration and gross national product per capita are evaluated. Also, the thesis advocates the functional region approach provides a reasoned framework to investigate and manage the regions of Turkey. In

parallel to this, the background, structure and principles of the approach are defined and examined.

**Keywords:** Region, Socio-Economic Development, Functional Region, NUTS2, Regional Development Agencies

## ÖZ

### **FONKSİYONEL BÖLGE İŞİĞİNDE TÜRKİYE'DEKİ BÖLGE ANLAYIŞINA DAİR BİR DEĞERLENDİRME**

Yıldırım Acar, Merve Nur  
Yüksek Lisans, Bölge Planlama, Şehir ve Bölge Planlama  
Tez Yöneticisi: Doç. Dr. Özgül Burcu Özdemir Sarı

Aralık 2021, 103 sayfa

Şehirler ve bölgeler, öncelikli olarak nüfus artışının bir sonucu olarak değişmektedir. Bu nedenle, yaşanan gelişme süreci için daha karmaşık yaklaşımlara ve daha işlevsel çözümlere ihtiyaç duyarlar. Bu bağlamda, fonksiyonel bölge yaklaşımı, iyi tasarılanmış ilkeleriyle sürdürülebilir sosyo-ekonomik kalkınmayı vaat etmektedir. Yaklaşımın ilkeleri kolay benimsenebilir ve her bölgede uygulanabilmesi için esnektir. Buna karşılık Türkiye, AB uyum süreci sonucunda ortaya çıkan bir yaklaşımı benimsemektedir. Bu yaklaşımı göre, Türkiye'nin heterojen yapısı sebebi ile sosyo-ekonomik kalkınmayı dikkate alan bir yaklaşımı ihtiyacı olmasına rağmen, bölgeler yalnız mesafeye göre oluşturulmuş İBBS2 bölgeleri ile tanımlanmaktadır.

Bu çalışma, Türkiye'nin bölge yaklaşımının bölgesel kalkınmayı sürdürmede, amaç-uygulama tutarlığını sağlamada ve bölgelerin mevcut sorunlarıyla başa çıkmada başarılı olamayacağını açıklığa kavuşturmayı amaçlamaktadır. Bu doğrultuda, mevcut yaklaşımı dair kanun, bölgelerin sosyo-ekonomik gelişmişlik düzeyleri ve nüfus, istihdam ve işsizlik oranları, göç hızı, net göç ve kişi başına düşen gayri safi milli hasılda görülen değişim değerlendirilmektedir. Ayrıca tez, fonksiyonel bölge yaklaşımının Türkiye'nin bölgelerini incelemek ve yönetimini sağlamak için iyi

düşünülmüş bir çerçeve sağladığını savunmaktadır. Buna paralel olarak, yaklaşımın arka planı, yapısı ve ilkeleri tanımlanmış ve incelenmiştir.

**Anahtar Kelimeler:** Bölge, Sosyo-Ekonomik Gelişme, Fonksiyonel Bölge, İBBS2, Kalkınma Ajansları

To my beloved family..

## **ACKNOWLEDGMENTS**

I would like to thank the following people for their help and support throughout the thesis process.

I wish to express my deepest gratitude to my supervisor Assoc. Prof. Dr. Özgül Burcu Özdemir Sarı for her guidance, advice, criticism, encouragements and insight throughout the research despite the pandemic.

I would like to thank Prof. Dr. Emine Yetişkul Şenbil and Assist. Prof. Dr. Esma Aksoy Khurami for kindness, participation, suggestions and comments on thesis.

Additionaly, I would particularly like to thank my mom, dad, sisters and brother for their support all the time, and my nephews and niece for giving me their positive energy. They always encourage me and never leave me alone whatever happens. I could not have finished this thesis without their support from the beginning to the end.

Finally, I would like to thank my husband, Gökhan, for his patience, encouragement and support. He contributed as much to this thesis as I did, in many ways.

## TABLE OF CONTENTS

ABSTRACT .....	v
ÖZ .....	vii
ACKNOWLEDGMENTS .....	x
TABLE OF CONTENTS.....	xi
LIST OF TABLES .....	xiii
LIST OF FIGURES .....	xiv
LIST OF ABBREVIATIONS.....	xv
CHAPTERS	
1    INTRODUCTION .....	1
1.1    Aim of the Study .....	1
1.2    Scope of the Thesis .....	2
1.3    Research Method.....	4
1.4    Structure of the Thesis.....	6
2    REGION APPROACH .....	9
2.1    History of Functional Regions .....	11
2.2    Structure of Functional Regions.....	13
2.2.1    The City / The Core .....	15
2.2.2    The Surrounding Area.....	15
2.2.3    The Other Constituents of Regions .....	16
2.3    Flows in the Functional Region .....	18
2.3.1    Flows of People.....	19
2.3.2    Capital Flows .....	20
2.3.3    Flows of Ideas .....	22

2.4	Significance of the Functional Region.....	23
2.4.1	Policy Side.....	24
2.4.2	Socio-Economic Side .....	26
2.5	A Framework to Investigate Functional Regions in Turkey.....	28
2.6	Functional Regions in Turkey.....	36
3	REGION APPROACH IN TURKEY: NUTS2.....	41
3.1	History of Turkey's Regional Boundary Approach.....	41
3.2	NUTS (Nomenclature of Territorial Units for Statistics) Regions and Development Agencies.....	45
3.2.1	Law on the Services of Development Agencies.....	52
4	EVALUATING THE PROMISES OF NUTS REGION APPROACH IN TURKEY .....	55
4.1	Law No. 5449 - Presidential Decree No. 4 .....	56
4.2	NUTS2 Regions in Practice .....	63
4.3	Success Level of the Current Approach .....	75
5	CONCLUSION .....	87
5.1	Summary of the Study .....	87
5.2	Evaluation of the Turkish Region Approach: Summary of the Findings .	89
5.3	Discussion.....	92
5.4	The Further Studies.....	94
	REFERENCES .....	97

## **LIST OF TABLES**

### **TABLES**

Table 4.1 NUTS2 Regions List in Turkey .....	61
Table 4.2 NUTS2 Regions in Law and Practice .....	62
Table 4.3 Socio-Economic Development Ratings of NUTS2 Regions, SEGE, 2003, 2011 and 2017 .....	66
Table 4.4 Socio-Economic Development Indexes and Rankings of TRA2, TRB2, TR32 and TR33 Regions, SEGE .....	67
Table 4.5 Socio-Economic Development Ranking Changes of NUTS2 Regions ..	73
Table 4.6 Changes in NUTS2 Regions from The Point of Six Parameters .....	76
Table 4.7 Overall Evaluation of Six Parameters in NUTS2 Regions .....	83
Table 5.1 Causes of two Approaches and Effects on Regions.....	93

## LIST OF FIGURES

### FIGURES

Figure 1.1. Structure of the Thesis .....	6
Figure 2.1. Turkey Traffic Density Map .....	32
Figure 2.2. İstanbul National Highways Traffic Volume Map .....	38
Figure 3.1. Seven Geographic Regions in Turkey .....	46
Figure 3.2. NUTS2 Regions of Turkey .....	47
Figure 3.3. Regional Development Administrations and Borders of NUT2 Regions .....	50
Figure 4.1. Assessing Regional Competitiveness in Turkey .....	58
Figure 4.2. Index Changes of Provinces.....	68
Figure 4.3. Development Levels of Provinces .....	69
Figure 4.4. Regions in Investment Incentive Implementation .....	71
Figure 4.5. Socio-Economic Development Ranking Changes of Provinces between the years of 2003 and 2017 .....	72
Figure 4.6. Socio-Economic Development Ranking Changes of NUTS2 Regions between the years of 2003 and 2017 .....	74
Figure 4.7. Population Changes in NUTS2 Regions .....	77
Figure 4.8. Net Migration Changes in NUTS2 Regions .....	78
Figure 4.9. Migration Velocity Changes in NUTS2 Regions .....	79
Figure 4.10. Employment Rate Changes in NUTS2 Regions .....	80
Figure 4.11. Unemployment Rate Changes in NUTS2 Regions .....	81
Figure 4.12. Gross National Product per Capita Changes in NUTS2 Regions (TL, at current prices) .....	82
Figure 4.13. Development Changes of NUTS2 Regions .....	84

## **LIST OF ABBREVIATIONS**

### **ABBREVIATIONS**

NUTS: Nomenclature of Territorial Units for Statistics

RDA: Regional Development Agency

EU: European Union

EUROSTAT: European Statistical Office

SEGE: Socio-Economic Development Ranking

TURKSTAT: Turkish Statistical Institute (TÜİK)

OECD: Organization for Economic Cooperation and Development

EURADA: European Association of Development Agencies

SPO: The State Planning Organization

KGM: General Directorate for Highways



## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Aim of the Study**

Turkey's region approach is based on adopting the existing traditions and continuing with border-based solutions. Solutions are primarily about revising and expanding the municipal borders or making slight changes in laws and regulations. In other words, policies in practice are not long-term solutions. Today, the region refers to NUTS2 regions made up of several provinces and they were created as a necessity of establishing Regional Development Agencies (RDA) in Turkey. While determining the NUTS (Nomenclature of Territorial Units for Statistics) regions, the current geographic regions and socio-economic conditions have not been considered. The only parameter was distance and provinces were handled as a whole and one piece. Furthermore, the aims of the current approach cannot be observed in practice. As the main aim in theory, ensuring regional development and decreasing regional disparities is not achieved. Conversely, the functional region approach draws a more precise and viable line to follow. The methodology is adoptable, resilient and applicable. Also, aims, opportunities and promises are lucid and reliable. Thus, the functional region approach is a more convenient way to examine regions in Turkey.

As mentioned, almost all the time in Turkey, urban and regional problems are tried to be solved by physical or legislative efforts. Still, the problem was the inadequate conceptual framework and practical reflections. Here, this study attempts to highlight there can be more effective manner and to point out a way for it.

There are several questions that attempted to be solved throughout the thesis and they can be stated as follow;

- What is the compatibility level of the current region approach to development challenges?
- What is the success level of the current understanding in terms of the aims of regional development?
- What are the strengths and weaknesses of the current region perception of Turkey?
- Did the current approach achieve its goals?
- What is the functional region approach against the current approach?

In the light of these questions, this research aims to clarify the coping capacity of current region perception in terms of social and economic challenges in regions and their futures and frame criticism of the current approach in Turkey in the light of the functional region approach. Thereby, the benefits of shifting from a distance-based region approach to a functional region approach could be revealed.

## **1.2 Scope of the Thesis**

There are many challenges in cities that continue to increase in number. In a developing world, dealing with these challenges is becoming more complex. Moreover, this complexity of challenges that is directly affected by urban dynamics requires an integrated and multidisciplinary approach. In order to explain the impact of urban dynamics on space, the spatial term functional region becomes prominent. Regions are spatial and socio-economical gateways for the future of spaces. They have no exact boundaries. Instead, they have transition zones that involve a wide range of characteristics and activities.

Producing and trading in closed systems, which means no direct relations with others and separation from others in terms of economic and social activities, shifted to collaborative working with other cities and regions when interaction and communication level increased by improvements and innovation. As a result, those

areas turn into cooperative and functional regions in time that behave in one complex city rather than a multi-city/region. Hence, common interests of parts of the region encourage them to collaborate and the core(s) of the region becomes an economic engine of it. Also, administrative borders between parts functionally blur. Therefore, it can be said that regions will have more influence on the world both economically and socially compared to individual cities, and cities will enter into the process of evolving into complex regions after they reach their limits. Indeed, regions provide development in collaboration with all parts, but it needs to have common features that band parts together.

The region approach is based on NUTS2 regions in Turkey, which come after the European Union candidateship. Before that, the country was represented by seven geographical regions that still exist but are not actually in use. Neither the geographical regions nor the NUTS2 regions are functional regions. Functional regions are the ones that have a system of interactions and mostly centered on a focal point or central hub with interconnecting linkages around it. Although the NUTS2 region approach came into view in order to ensure equitable resource distribution and regional development, based on the observations so far, it could be argued that this approach is not able to achieve its aims. Even the State Supervisory Council Report about Evaluation of Turkey's Development Agencies Experience in 2014 and Development Agencies General Audit Report-2018 prepared by the Court of Accounts in 2019 highlighted the requirement of revising NUTS2 borders. According to State Supervisory Council Report, borders of RDAs are not appropriate for functional economic division of geography and current borders do not have a specific integrity system because they gather provinces that have different features (Karasu, 2015). Also, Development Agencies General Audit Report-2018 advocates regional plans prepared by development agencies that are important for regional development are not get into practice effectively and they are accepted as intention documents and they cannot be able to function completely (Court of Accounts, 2019). So, there should be a new approach to examine regions in Turkey. In this point, this study argues that the current region approach is not a prospering

understanding and functional region approach could provide a more successful framework for the operation of Turkish regions.

Determination of the NUTS2 regions in Turkey is based on the concept of neighboring defined by the borders of the adjacent cities. This thesis argues that NUTS2 classification does not provide a homogenous investment opportunity, sustained regional development and resource distribution within the region. Therefore, it should be replaced by a functional region understanding which may have a separate structure from the government and administrative units. In this concept, it is necessary to create a regional perspective, including structures that form a homogeneous piece of space and units supporting each other and working together. As an understanding of these principles, regions provide a functional partnership but may not have sharp boundaries while separated from other zones with transition zones. These regions are separated not according to the provincial administrative boundaries but in terms of functional unity and transition zone. Thus, homogeneous resource distribution can be achieved by eliminating the intraregional development differences.

### **1.3 Research Method**

The mentioned context of the study requires considering Turkey as the case study of this study, reviewing secondary data, and collecting written and visual documents about the regions around the world. Since the case of the research is dynamic and sustained and the study subject is Turkey's regions, such a method would provide more opportunities to understand economic and social parameters. Throughout the research, regional development is handled as the main issue. The functional region approach and its principles are investigated according to regional development. Also, the region approach of Turkey is criticized for not being able to ensure sustained regional development by the view of NUTS regions.

Literature review is used as a research method for chapters two and three. The articles about the context, researches about the NUTS system, studies in Turkey related to

the case and other documents like law papers are reviewed and analyzed. The historical background of the functional approach is represented, both physical and cognitive structure is enclosed and principles of functional regions are listed. In order to clarify the current perception of regions in Turkey, historical region attitudes of the country are explained and the NUTS region approach is elaborated. Also, for these chapters, written and visual documents are collected. Law No: 5449 (Law on the Services of Development Agencies) is introduced in detail. Map of NUTS regions in Turkey and map of the seven geographical regions is used in the study.

In the fourth chapter, secondary data review and analysis are carried out and Turkey is evaluated as a case study for the thesis in the light of the other chapters. Especially, results of SEGE (Socio-Economic Development Ranking) researches in 2003, 2011, 2017 are used to attain the findings of the study. Also, TURKSTAT (Turkish Statistical Institute-TÜİK) population data in 2007 and 2020, net migration and migration velocity data in 2008 and 2020 from Address Based Population Registration System Results, employment and unemployment rates in 2004 from Labor Statistics, employment and unemployment rates in 2020 from Regional Results of Labor Statistics and gross national product per capita data in 2004 and 2020 from Regional Calculations are used in order to interpret in terms of regional development of regions. Regarding to aim of the study and related scale, Turkey is examined as the case study. In parallel to necessities, provinces or regions are evaluated in the research. Also, written and visual documents such as Presidential Decision No. 4191 (Decision to Amend the Decision on State Aid for Investments), OECD (Organization for Economic Cooperation and Development) reports, maps and analysis are collected for the fourth chapter. Articles of the Law No. 5449 are also used to examine the issue. Maps of regions on incentives, developments levels, and rankings are prepared and utilized to elucidate the argument.

## 1.4 Structure of the Thesis

The thesis is composed of five chapters. The next chapter after this introductory chapter discusses the region approach. At first, the historical progress of the region approach on the specific base of functional regions is given in this chapter. Then, the functional and notional structure of regions is represented. Apart from the core and surrounding parts of the region, other elements are presented. The third section of the second chapter explains the flows that have an effect on functional regions, while the next part clarifies why the functional region approach has a significant meaning. The importance of functional regions is explained under two sides, policy and socio-economic sides. The penultimate section of this chapter gives clues about identifying functional regions in Turkey. The factors in order to evaluate regions are ordered and defined. Finally, functional regions in Turkey are examined at the end of the chapter.

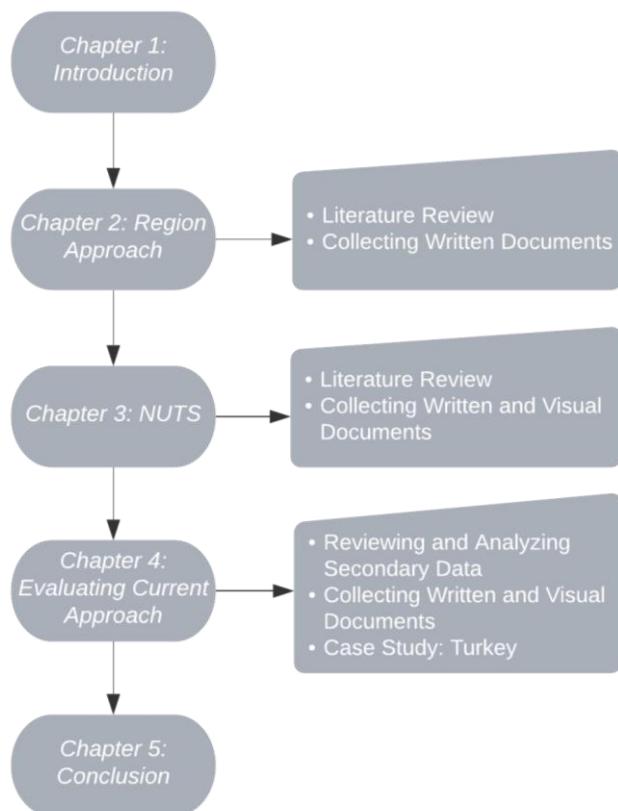


Figure 1.1. Structure of the Thesis

The third chapter elaborates on the current region approach of Turkey. The evolution of the region approach is represented in chronological order at the beginning of the chapter, and then, NUTS regions which create the current region approach are enlightened. The law about regional development agencies is analyzed as a manifestation of the current region approach.

The fourth chapter clarifies the arguments of the thesis. Firstly, cognitive conflicts of the current approach are examined. Law No.5449 (Law on the Services of Development Agencies) is studied in detail and questionable sides of the approach are viewed. Aims of the law are defined and conflicts are shown. Then, practical and functional problems are illuminated. Inter- and intra-regional disparities and the other results of the current approach on regions are presented. At the end of the chapter, an overall evaluation of the current approach is carried out. Six different aspects are introduced and reflections on the field are shown.

The fifth and final chapter presents the whole picture of the issue and gives a summary. The findings and results are put forward and a discussion about interpretations is conducted.



## **CHAPTER 2**

### **REGION APPROACH**

Regions are a wider matrix of specific relations. They can have a meaning of not only physical geography but also culture, biology, ecology, society, human actions or a composition of a few. There is no exact scale to practice and no rules to define the relations in regions. They are entirely dynamic and flexible formations that occur as a result of all actions in their impact area. This situation makes regions the most convenient scale for spatial, political and cognitive development. As a notion of research, regions are defined as “more than one but less than many” (Spinuzzi, 2003).

In planning, a region mostly means a spatial and societal relation network. Numerous parameters influence the region, but in general, social, economic or political dynamics play a role in spatial regions. In the spatial view of regions, geographical conceptions play an influential role in organizing and shaping understandings of the world, so they influence action. For instance, the geographical perception was the main effect to decide where settlement should be built on in ancient times. In this sense, geographic regions represent clusters of human or physical geography, and like all other dynamics, human clusters change over time.

There are three classes and two types of regions. Classes are;

- (i) formal,
- (ii) functional,
- (iii) perceptual regions.

Types of regions are;

- (1) physical (natural; climate, landforms, rivers, vegetation, lakes and oceans)
- (2) human (cultural; language, political, religion, ethnicity).

Types of regions are easier to identify in contrast to classes.

Formal regions are areas where specific characteristics are found throughout the area (Henriksson, Kauppinen, & Hyvönen, 2008); e.g., countries, states, cities. The government or other structures define them, so they mostly have determined boundaries. Also, many physical features such as valleys are easy to map as formal regions using naturally occurring boundaries. They often nest inside one another. They have one or more measurable, common features that distinguish them from the surrounding area. These features can range from such characteristics of the local population as language, income or religion to such physical characteristics as elevation or climate. As a consequence, all formal regions are based on measurable data. They have one or more common characteristics, political entities, climate regions, landform regions.

Functional regions mostly have a central place and the surrounding places affected by (Henriksson, Kauppinen, & Hyvönen, 2008); e. g. The Omaha metro region. Some researchers explain this by bicycle metaphor; center of wheel: all activity and beginning of interactions, middle: transportation, communication and trade reaching outside areas, tire: areas receiving the transportation, communication and trade. Thus, it can be said functional regions are defined by a system of interactions, and they have a focal point and surrounding areas linked by transportation and communication systems.

Perceptual regions are areas defined by people's feelings and attitudes (Henriksson, Kauppinen, & Hyvönen, 2008); e.g., the Midwest. They do not have clear-cut boundaries, and they can change over time more likely. Those regions are frequently based upon stereotypes as people's definitions of perceptual regions are influenced by travel, media, reading, films and conversations. They form regarding how people perceive an area.

As the issue of this research, functional regions are discussed because of their structural features such as settlement connectivity, interactions and flows of relations. Those features order a series of regional development principles necessary

for Turkey's regional conception. Functional regions can be defined as 'relationships between city and its environs', 'relational understanding of space', 'relational dynamics of the social networks and urban functions' or 'space of flows' as Castells stated. As a more detailed explanation, he says, "our societies are constructed around flows: flows of capital, flows of information, flows of technology, flows of organizational interactions, flows of images, sounds and symbols..." (Castells, 1996). Hence, the region approach is based on those flows. Principles of functional regions have been used for decades to explain development processes and sign a way to take regions further. In order to understand functional region principles in detail, the origins, physical and conceptual structure and importance of the approach should be investigated.

## **2.1 History of Functional Regions**

The scope of functional region perception is quite wide, so the methodology of it is carried out by the formulation of city-regions in order to make its characteristics and history more explicit and lucid to understand. City-regions entirely lie on the functional region approach.

Especially after the first half of the 20th century, regions with economic power evolved to city-regions as a consequence of the increase in population (Oğuz & Sönmez, 2012). Population increase brought about a lack of economic and social activities in closed system cities, so the need for mid-scale approaches emerged. Interactions, relations and connectivity became quite important parameters to answer social or economic demand. Because of some reasons –for instance, space scarcity, competitive market conditions (because a competitive market needs knowledge and skill transactions) and socio-cultural causes- the city blurred its borders and expanded to nearby zones.

The city-region concept has been actively alive since the 1980-90s but there was no remarkable attention on it. Although there are zones to identify as city-regions

regarding that time, city-regions are overshadowed because of the concerns about urban problems, especially the inner city. Its revival has been accepted as a reborn of an analytical structure and the occurrence of a guideline for new regionalism (Davoudi, 2009). Attention on the city-regions approach has been rising in recent years, but the origin dates back to the early 20th century. Robert Dickinson is accepted as the first researcher who coined the term in 1947. However, the concept in theory and practice traced back to earlier times. The 1909 Plan of Chicago was a planning practice handled by a regional view of the city extended well beyond its administrative borders. Later, in 1915, Patrick Geddes used the ‘conurbation’ term as the more convenient way to explain city-regions. Today, conurbation and city-region terms are completely different in use. In 1933, Roderick Duncan McKenzie mentioned that a metropolitan city was initially a functional entity and emphasized the socio-economical influence of the metropolitan city. Also, Bogue was interested in this view in 1949. Then, Friedmann and Miller highlighted the importance of the large city in spatial organization, and they used the notion of ‘urban field’ in 1965. Boudeville, in 1966, pointed to the ‘polarized region’ as a tool to show spatial economic effects of the market-driven growth pole. Those concepts are differentiated from each other in some points but what remains the same is that the city extended its administrative boundaries and interactions there (Parr, 2005; Davoudi, 2009).

There is no common definition of city-region though it has a long history. However, there are some statements put forward by researchers to identify it. The most accepted definition is that a city-region has two initial interrelated zones. One is *the city* or, as said by some researchers *the core*, and the other is the *surrounding territory* or *hinterland* of the city. According to this definition, the city covers a specified set of functions, and the surrounding area is exclusive to it (Parr, 2005). Also, the term city-region refers to a variety of spatial structures and contains significantly different regional scales. Still, as said above, there is no exact and commonly accepted definition of it.

The term has been associated with many discourses. City-region term depicted as the ‘death of distance’, ‘end of geography’, ‘emergence of a weightless economy’ (Pose,

2008). Some researchers explain the transformation of metropolitan areas into city-regions as fractured metropolises or the rise of Edge City (Tekeli, 2004). Furthermore, the term has been accepted as being in relation to the notion of new regionalism. However, sometimes it is intermingled with close notions or concepts, e.g., world cities, global cities, functional urban regions, regional economies, region states (Pose, 2008). Pose (2008) gives definitions of Davoudi and Vermeijden as commonly used ones.

Davoudi (2003, p.11) defines city-regions as; “The concept of city region (which is consistent with Geddes’ original definition of conurbation and Gras’ concept of metropolitan economy’) moves beyond such distinction and covers not only the commuting hinterland of the city but also the whole area which is economically, socially, and culturally dominated by the city.”

Definition of Vermeijden is; 2001, p. 212: “The ‘city region’ [denotes] a spatial hierarchy of satellite towns surrounding a central core city, on which the satellite settlements would depend for both employment and services.”

Functional regions have followed the same route. The cities/regions evolved into functional regions in time in a natural way. It is kept in the background as a term in a period of time; although it is active in practice, even different names were used for it. Also, it is hidden under different terms, like city-region, because the term of the functional region is quite comprehensive and wide. Distance is not a parameter of the functional region; on the contrary, distance is an obstacle. Thus, the structure of functional regions is not dependent on physical geography; it is dependent on relations. The core, the surroundings and the other constituents like boundaries and transition zones form in parallel with relations.

## 2.2 Structure of Functional Regions

There are many identifications of functional region structure but the lowest common denominator is similar to the bicycle metaphor. These regions mostly have a central

place and the surrounding places affected by the center. Therefore, as mentioned in the bicycle metaphor, regions are defined by a system of interactions and have a focal point and surrounding areas linked by transportation and communication systems. The city and its surrounding territory, which are the constituent elements of the functional region, are exhaustive and mutually exclusive. They and their attributes exist, but this cannot be evidence for exact boundaries between the two zones.

As a difference-maker, sectoral distribution of export base is an aspect of regions. Spatial site selection of export base is the other aspect of it. In some cases, the export base locates in completely the core. Thus, the surrounding area provides the source and materials. In the other cases, the export base locates in the surrounding territory. Then, the city serves as a provider and collection-distribution point. However, these conditions are not common. The general situation is that the export base locates in both the core city and the surrounding territory (Parr, 2005). As an essential point, site selection and distribution composition change through time; it is not constant as predictable.

The approach advocates blurred or disappeared borders and new boundaries of globalized regions. Those new boundaries cannot be only national but also transnational. Thus, the concept of functional region is both conceptual and practical. Functional regions include more than one settlement, and as distinct from metropolitan areas, each settlement is not a satellite of the core. They are also independent of the core in some points (Tekeli, 2004).

As a general explanation of functional region structure, it is made up of interdependent components, and the components of functional regions have different meanings in the whole. The components are the core as administrative and economic management hub, the surroundings as a supporter constituent with means of transportation and communication and the other elements such as boundaries and overlapped zones. The region has these in order to ensure the permanency of the region.

### **2.2.1      The City / The Core**

The functional regions usually revolve around a node. The node as a focal point contains a concentration of jobs, services and other functions. It serves and gets service from other settlements in the surrounding. The core is a point of distribution, a center of public and private service provision and a node of control, business, ownership, public administration and organization (Davoudi, 2009). The core is where most of the activity goes through. People and actions flow from the core and turn back to it.

The city as an element of the region can occur as a result of peripheral urban growth, or it can be an area that emerged by gathering more than one urbanized area that was independent before (Parr, 2005). The core of the functional region includes a continuously settled and urbanized area with a population.

The city of the region does not mean that there can be only one city accepted by administrative authorities. There can be one or more centers but the most common is the region with one core. In the regions with more than one center, each city can have an exact dominance, or none of the cities can dominate the others according to distance to the surrounding area (Erlebach, Halas & Klapka, 2014).

### **2.2.2      The Surrounding Area**

Parr describes the surrounding area in his article (2005) as a territory linked more with the city zone than with the city zone of some adjacent region. This non-limited area is an interrelated component to the city-region and it is associated with and sometimes dominated by the core (Davoudi, 2009). Because of its structure, the surrounding area contains not only urban areas but also urban population. As mostly thought, the development level of a functional region determines the level of urban share. A more developed region means more urban share. The urban population of this zone is located in different central areas of various sizes. Some of those centers

can have more population than the population of the core city. Urban centers are mostly arranged regarding centrality and hierarchy (Parr, 2005).

The area is considered as the surrounding zone of the city where the working center is located (Davoudi, 2003). In another saying, the surrounding zone serves recreational aims and production of raw materials, and it has the potential of labor and capital supply (Parr, 2005).

### **2.2.3      The Other Constituents of Regions**

There are other constituents apart from the core and surroundings to define the borders and form of the region. These are boundaries and transition zone, which are interwoven terms to each other. Functional regions separate from other kinds mostly because of these elements.

Boundaries between regions are blurred. However, they can be signed by a series of interactions. Migration and travel-to-work distances show the extent of the region. Administrative and policy purposes are criteria to understand intervention relations. Also, retailing and shopping trade plays an important role in giving clues about economic relations. Sometimes, the boundaries of regions can overlap. The area where they overlap can be seen as belonging to more than one region, so it has characteristics of several regions (Parr, 2005). Indeed, boundaries of the functional region can change over time because of changes in interrelations between the elements of the region and also between the regions. In addition to these, boundaries can be not matching to determined administrative boundaries. A perfect match of functional boundaries of the region and existing administrative borders is rare (Pose, 2008).

One of the unique, even the most distinctive, structural features of the functional region is transition zones. Blurred borders, newly identified boundaries, relations between parts and flows in regions form transition zones. Transition zones are highly critical for these regions because it is the main characteristic that separates them from

other regions or settlement complexes. They have the role of boundaries of the region and are marked by a gradual shift in characteristics. Transition zones cover dual features of regions or their parts. Thus, regions or parts of them overlap in those zones; one reason for this is blurred or overlapped boundaries.

Characteristics of regions are together in transition zones, and thus, as a disadvantage, there is possible tension between groups. However, transition zones ensure that the population there can be served both socially and economically in a more convenient way. This situation is because the areas on transition zones have both the characteristics of one region and the interaction with all the related regions. In addition, a kind of flow named as ‘redistributive flows’ affects and changes the spatial structure of the region. Migration of population and labor can be given as an example. Earlier, regions were centralized around the city because of commercial and household demands of the surrounding area and labor and raw material occasions of it. As a result of the centralization movement in the spatial structure of the region, the city was directly associated with rapid growth. Later, population and employment shifted from the city to the surrounding territory. Thus, regions began to decentralize. Mostly, it was a cause of long-distance commuting opportunities and negative externalities.

Finally, Coombes (2014) identified three certain features of regions (as specific city-regions) as fundamental, which also covered in ideas pointed out by Geddes (1915);

- unlike the conurbations, functional regions extend to include rural areas;
- functional regions are relatively self-contained local economies;
- commuting flows are one primary way that constituent areas of functional regions are linked, so flow data sets provide the basis for defining region boundaries

The elements of functional regions -the core, the surroundings, other constituents- arise as a result of relations, in another word, ‘flows’. As mentioned before, many dynamics play a role in functional regions but the most dominant ones are economic,

social and political dynamics. These dynamics are defined by flows of people, capital and ideas.

### **2.3 Flows in the Functional Region**

In literature, functional regions are accepted as a polycentric settlement system. In this respect, polycentrism is formed by explaining the reasons for each center/settlement to exist. Those settlements develop an integrated composition that generates a city-region (Tekeli, 2004). Functional region means ‘more than one, less than many’ as explained in many research on regions (Metzger & Paasi, 2017). They emerge regarding interactions, flows and relations between different parts, but parts of the region come together according to logical reasons and needs. There cannot be an irrelevant or out-of-relations part. All parts are in at least one interaction flow. Hence, the main reason for functional region structure, blurred boundaries, and transition zones is flows in space.

Flows cannot be limited to a closed zone; flows bring interaction and connection between spaces. As a consequence of those flows, formal borders blur and functional boundaries, which are not definite, emerge. Therefore, functional regions are formed by a pattern of flows and means relations between the city and its environs. Also, in practice, the concept of region is considered ‘the areal extent of a metropolitan area’ formed by flows (Davoudi, 2009). Flows are the main parameters to form regions and determine the characteristics and the tendency of them.

Although cities and regions have a series of relations and flows, there are three critical flows in regions that present blurred and inexact boundaries, relations and domination/integration, size (perceptual or functional) and characteristics of the region. Those are flows of people, capital and ideas similar to flows grouped by Gertler (2001) in order to clarify the interconnectedness of the economic and the social in Canada.

People; commuting for work, leisure, entertainment or cultural activities, flows of services such as education, health, business,

Capital; flows of goods, manufacturing and other relations between firms,

Ideas; knowledge; technical information, ideas, experiences, innovation, ethnicity, values, social norms, etc.

Functional regions provide a composition of relations. It is based on economic, social and ideal connections of the core with the surroundings without homogeneous constant borders. The concept of functional regions accepts the decisions of people about living, working, leisure, shopping areas and economic processes (Hildreth & Clark, 2005). It cannot be limited into administrative borders. Therefore, functional regions contain multidirectional and multilevel flows. The main system of the functional region is established on those flows. Thus, they should be searched and examined in the region in order to investigate the scope, structure and boundaries of the functional region.

### **2.3.1 Flows of People**

The functional region concept draws the framework of an area formed by human actions in spatial relation. A functional region cannot be considered without human activities. All other activities in the region are directly related to the people. Hence, the form and main characteristics of the region are caused by people relations. Basically, people movements are the main parameters to draw the conceptual structure of the region. Besides the conceptual frame, the physical structure is also mostly determined by people activities. The core, the surrounding area, related zones, extent and transition zone/boundaries are directly related to people flows.

Flows of people can be seen in a variety of movements. All of them bring in increased dynamism and vitality to regions. People flows represent a key source of new human capital and talent, which means one settlement can profit from the labor force of the other and the other one can profit from the knowledge and skills of it. Both cause

brain circulation/brain gain. People interactions reveal a common sense of individuals while benefiting from different specializations, talents, creativity levels and dynamisms of those (Gertler, 2001). Also, the flows of people bring in diversity and mobility. Interactions caused by people flows make the regions open systems. As a result, connectivity and relational dependence can be provided.

Mobility is primarily caused by commuter flows in the region. Commuter flows can be described as the daily travel of people from their residence to their workplace. Thus, commuter flows are directly related to the spatial distribution of population and working zones (Law & Versluis, 2015).

Human activities affect the other movements in the region because the human effect is the active one. The others need an initiator like human. In other words, all other flows are determined by human activities. The most obvious ones are capital and idea flows. People take their ideas and the money to other areas in or out of the region. Capital and idea movements affect the region in different ways even though they are caused by people actions.

### **2.3.2      Capital Flows**

Capital movements have power over the future of regions in competitive world market conditions. Relation network is built around the capital. Commercial ties determine the connection level between regions. Also, in the region, interactions between the parts of the region are formed by capital transactions. Site selection of firms and their branches and their relations with the other firms and branches affect both the physical and conceptual structure of the region.

The region's primary basis is capital flows between the urban core and its rural or urban-rural complex hinterland. There are many types of economic interactions between the core and the territory. Some of them are marketing, the housing market, and retailing (Pose, 2008). Both complementary elements (the core and its territory) of the city region have their own specialized economic activity set. Thus, they have

demand and supply relationships regarding their distinct set of economic activities. In almost all internal trade movements, the core city exports a variety of services such as commercial activities, business, and finance to its domain. Also, there is direct exportation of manufactured goods (Parr, 2005). Indeed, vice versa can be seen in regions, too. The surrounding area exports raw materials, amenity and resort services, semi-processed manufactures to the core. As can be understood here, the growth of one element of a region affects the growth of the other, correspondingly to employment and income.

Economic connectivity provides a view of the size of the region in terms of the spatial extent or relational interactions. Therefore, economic connectivity should be considered in detail. This situation does not mean an economically powered central settlement and other sub-settlements linked with that central city. Indeed, economic connectivity is more flexible (Tekeli, 2004). As an example, some regions spread and form a more complex functional region because of space scarcity. Because of increased population and settlement area spreading out all over the land of the region, land prices increase rapidly and sometimes unfairly. Then, city boundaries are blurred and close cities or settlements interact with that city and support economic conditions. Thus, connectivity between them becomes stronger. Even industrial zones can be established where land prices are low.

Capital flows cannot be minimized into intra-region relations. Companies in a region can try to reach world markets by improving their relations with companies in the same region through various networks. Also, they are able to communicate with a number of companies around the world. Relationships are not space-dependent; they are based on a common interest (Eraydın, 2004). This condition also causes the need for a regional approach that is not based on distance.

Capital is a driving force of the regions in terms of their future structure. Regional development is directly related to capital. Thus, being a resilient region with its constituents depends on capital relations. Intra and inter-firms capital interactions, prices and costs, demand and supply relations draw a frame for the structure of the

region. As a result, capital flow like flows of people and ideas is a factor in formulating the extent, division and concept of the region.

### **2.3.3 Flows of Ideas**

In the developing world, regional development is dependent on the intellectual background. Regions are in relation with the others in order to expand their intellectuality. Also, means of relation are changing in parallel to improvements in communication systems. Distance is not an obstacle now against the idea flow. Boundaries of the region can be wider because sharing the ideas is not a limitation. The point here is a common language.

Flows of ideas can be accelerated initially by transportation and communication. Notable developments in transportation and communication technologies over the past few decades have brought together all parts of the world to help eliminate the region's barriers, and dense urban communities continue to increase in size and importance everywhere (Scott, 2000). The actors of the region, especially the economic contributors, should comply with changing world conditions. Regions should be creative formations, use their potential resources and ensure sustainable development by leading their knowledge into innovation and creativeness (Eraydin, 2004). Correspondingly, innovation can be provided in the way of sharing knowledge. However, it is not easy to transfer knowledge without sharing a common code of communication, expectations and norms that determine the practices of the parties. Some researchers elucidated that sharing a common code is most likely to happen if the actors/parties are in the same region. Moreover, these shared common communication codes form an important region-specific incorporeal asset that enables the formation and continuation of collaborative learning relationships. That is also linked by the term ‘social capital’, and it is accepted that the regions are the most convenient areas for the occurrence of social capital. Also, regions started to be called learning regions (Gertler, 2001).

Flows of ideas may be more complicated to analyze rather than other flows but it is quite crucial for the structural improvement of regions. Especially in the communicative world, this type of relation with the others -people and capital- should be in consideration in order to maintain regional development and ensure sustainable regional relations.

In the developing world, the network of sharing production, knowledge and other opportunities is a quite important issue (Eraydın, 2004). In this respect, functional regions are systems made up of multidirectional relations and flows are the formulations of those relations in the regions. These show the importance of the functional region approach from a certain point of view. The approach has significance for the spatial, economic and social development of the regions.

## **2.4 Significance of the Functional Region**

Regions gain attention in many aspects. First, regions are seen as the economic locomotives in the globalized world. It is indeed related to the welfare level of territories, which depends on the success of the core and the others. The other is common interests that bring together parts of the region and sign main issues about governance (Pose, 2008). Furthermore, the region seems the most appropriate example as a multifunctional nodal region through all challenges (Parr, 2005). Correspondingly, regions are considered as the most convenient scale for intervention (Karasu, 2015).

As the most important feature of the functional region, it enables handling two different location theories that are mostly dealt with separately. One theory (Von Thunen) examines the effect of the core city on the surrounding territory. In contrast, the other (Christaller and Losch) studies the effect of the hinterland on the city. These influences change through time, and this has an important role in the long-term evolution of the region structure (Parr, 2005).

The functional region understanding does not have a definite explanation and it has a more fluid structure than many other approaches. In another saying, it takes shape according to the area where it is applied and gains a specific definition. Each region is unique and creates a new form in itself. For this reason, a suitable development environment can be provided with different policies at different scales. For Turkey, the current understanding seems inconsistent and unenforceable in many ways. The functional region approach is suitable for Turkey to realize the necessary aspects and a few different issues. The functional region principles bring Turkey's region approach in more steady perception, resilient development against regional challenges and convenient basis to stand on. The appropriateness of the functional region understanding can be explained with two subheadings; policy side and socio-economic side.

#### **2.4.1 Policy Side**

Traditional policies are generally top-down and sectoral. Such policies generally address the nation as a whole and do not give priority to the local. The policy implemented for a region is usually aimed at protecting the industrial sector, and the policy applied for either can be transposed to the others. However, territorial policies are brought in with the functional region understanding (Pose, 2008). The local is given the right to speak for the whole because every piece within the region means something. The policy applied for a region is area-specific and differs in other areas according to the characteristics of the local. All policies within the region are shaped according to the social and economic development of each territory. Accordingly, suitable strategies can be produced for potential resources of the territory; this leads to effective target setting and the success rate increases. Thus, resources can be used effectively. All policies made in the parts are the building blocks for the region's needs, expectations, and current situation. There are also policies created for the region as a whole, but unlike traditional policy-making, local policies are also important.

The functional region development process is both multi-actor and multi-level. Multi-actor because in the governance process, top-down all public and private sectors should take place. Also, multi-level because all stakeholders from local, regional and national, are important for the development process. There is coordination among all actors, and some have authority over the regions directly, some indirectly. Within this structure, the most distinctive aspect of the functional region is that the local has a voice. Local takes a proactive role. Empowering local provides the society with the opportunity to express an opinion about their future and contribute to understanding and developing the specific situations and needs of the area as residents. Thus, the involvement of the local in the governance process improves the decision-making process.

The implementation of multiple territorial policies increases the variety and number of development policies and strategies. The old policies can be used within the functional region understanding, but these policies need to be revised according to the state of the territories (Pose, 2008). The multiplicity and diversity of policies and strategies enable potentials to be used and efficient use of resources. In addition, the effectiveness and gains of policies and strategies increase. Specific policies made in the region parts can be implemented by providing re-control in other similar territories. For the policies made on a national scale, making these policies and strategies on a smaller scale ensures that their success rates and applicability can be observed better. That possible negative effects can be predicted, intervened faster and controlled without affecting the whole.

National scale and national organizations are not functional in the developing world. However, regional scale is much more convenient with its flexible and adoptable features for development, investment and incentives (Karasu, 2015). Policies targeting the entire country are not beneficial for especially heterogeneous countries like Turkey. There is an imbalance between inter-provinces and inter-regions in Turkey. Based on the SEGE studies mentioned earlier, it can be seen that there is socio-economic inequality between the east and west of the country. For this reason, national and holistic policies that evaluate the whole country under the same

conditions cannot be expected to have sufficient impact. However, in the understanding of the functional region, each region and even parts of the region, if necessary, are subjected to original policies by evaluating their own subjective situations. By understanding the locality, more clear and more effective policies can be produced by aiming towards a specific goal.

Another positive aspect of the functional region understanding is that it is an ideal scale for policy innovation. The transition from holistic policy making to policy making by evaluating fragmented and domain-specific situations and the internal diversification of regions is the first condition that lays the groundwork for innovation. Another one is less evident incentives. Innovative investments in regions are less obvious because the prosperity of the regions depends on the holistic economic condition, not their internal situation. Also, supporting innovative policies is a very risky situation (Pose, 2008). Therefore, policies implemented at more appropriate scales can reduce failure effects, be prevented, and sometimes be predictable.

The state plays a supportive role within functional region systems rather than directly intervening. This creates a new scale for policy-making and also an independent governance actor. Independency makes the policy-making process more challenging because of the conceptual frame of the functional region. However, it also gives powers to all stakeholders and the region itself on the development process. It creates a new identity at a new scale of governance and space, which accelerates and strengthens both decision-making and development processes.

#### **2.4.2      Socio-Economic Side**

The boundaries of the region are not permanent. They can change in time regarding changes in functional connections between regions or the core of the city region and its hinterland. So, being open to change brings invulnerability to different dynamics. Socio-economic interaction level inter- and intra-regions can rise and more

compatible relations can occur. In this way, regions become more resilient, which means not being negatively affected by alterations and even using the alteration to get better.

Functional regions are not randomly formed units but based on common interest. This situation brings joint action and harmony. Functional connection creates a more permanent coexistence than other types of relationships because each part has a reason to stand together and contribute to the whole. No part of the whole seems like an unnecessary burden to the whole. In this way, a more permanent, effective and improving integrity can be achieved. Regardless of the core or surrounding territory within the region, each piece has a meaning. All parts of the region, acting on the principle of joint working for the region's economy, act as an economic actor. Hence, the integrity of the meaningful parts creates self-contained regions. Regions that specialize in time go beyond competence and experience self-reinforcing development as they achieve economic development.

One of the main defining features of the region is mobility. All types of mobility apply to regions; labor, capital, etc. Mobility strengthens the functional unity of the region by increasing connectivity within the region. It creates a force cycle within itself economically and socially and reduces expectations from outside. The dynamics within the region also strengthen the bond with other regions. The dynamics can form a link with other regions with the flow of people, knowledge and sometimes capital without concern for distance and scale. In regions that are expected to be independent to a certain extent, it is seen that interconnectivity sometimes bypasses the state and establishes a direct relationship with another region (Pose, 2008).

According to meaningful and functional relationships, a region consists of parts determined due to the natural bonding process. In other words, the harmony of the parts within regions is a situation functionally brought about by the process and there is a development balance between these parts according to their potential. The development in the parts contributes to the whole. In other words, the development

in the whole occurs mainly as a result of the development in the parts. This situation is valid within the region as well as at the integrated state-level formed by the region. Therefore, it can be provided to stimulate and improve the backward regions. For the backward and neglected regions mostly in the east of Turkey, an effort can be made to establish a balance between regions within a country applying development policies according to their current potential. As a result, the backward regions are meaningful in the whole and the development in these regions positively affects the whole. In addition, the region understanding ensures an environment of trust. A participative and collaborative decision-making process, including the local, positively affects every stakeholder and generates mutual trust. This increases the success rate of the decision-making process and thus the social and economic development of the region.

## **2.5 A Framework to Investigate Functional Regions in Turkey**

The shortcomings and inconsistencies of the current regional understanding will be mentioned in the next chapters. However, while considering a different region approach for Turkey, it is necessary to mention how applicable in this country and how obtainable the data is.

As stated in the study of Coombes (2014), the city-region is the city with its region. Regions or cities are not the only priority. It is a framework for functional regions, too. Here, a simple and introductory methodology is presented for this understanding. While creating this, Coombes (2014), Hall and Pain (2006) and the Globalization and World Cities (GaWC) Research Network (Loughborough University) have been primarily adopted studies.

Regions have a definition that eliminates the neglect of space, and the shaping of spatial organization is left to itself (Tekeli, 2004). Also, since they have unique policy and development patterns, they do not have an immutable and precise definition and pathways. However, they are almost completely shaped through the

same conceptual structures. Accordingly, the scope of the region can be based on criteria. Accordingly, the following criteria to be taken into consideration when determining functional regions in Turkey listed conceptual frameworks that need to be established and the data to be collected and analyzed.

*Understanding the requirements:* In order to understand and shape the conceptual boundaries and structure of the region, it is necessary to determine the needs first. Because each region's political and socio-economic structure is unique, data-based and reliable definitions should be made when determining these area-specific needs (Coombes, 2014). Of course, it is challenging to obtain, classify and be sure of this data set. However, since it is an indispensable prerequisite for regions, its research should be prepared well and comprehensively. For this, it should be ensured that each stakeholder, especially the local, is included in this phase and needs that are not changed in a short time should be determined.

For instance, in the TR33 region in Turkey, Manisa comes forward with the automotive industry and Kütahya with the ceramic industry. However, Afyonkarahisar and Uşak don't have any specific industrial sector. Thus, the needs for investments or economic conditions are different. Indeed, the only parameter is not industrial sectors, but it is quite critical. As an example, İzmir and Manisa have both economic and social relations. Manisa can use İzmir harbor for international trade and knowledge and technology can be transferred between the two. Also, residents in Manisa commute to İzmir for leisure, shopping, etc. Therefore, the discussion on İzmir and Manisa can be more relevant to the region approach than the TR33 region in terms of needs. Additionally, on the basis of region, all districts of Manisa or İzmir may not be included in the discussion on İzmir and Manisa.

*Identity:* Regions have a structure independent of the national government. It determines its own conceptual boundaries and keeps its concepts separate from administrative concepts. It must have a political, social and economic identity for these reasons. The need for identity is a prerequisite for the region as an independent actor and policy making and implementation at a national scale. Since the structure

of the region is based on a conceptual framework, while economic and social activities can be observed and executed functionally within the conceptual scheme, governance needs a clearer basis. Therefore, the region's policy-making process and governance capacity are based on a clearer basis in line with the determined identity.

*Commuting flows:* Many researchers like Castell find it closer and more straightforward to define regions through flows. Flows form the veins of regions and put fundamental indicators to reveal their conceptual boundaries by understanding their general structure. On the other hand, Commuting flows give the most basic information about transition zones as well as being the data that reveals the connections between core and territory in the most straightforward way. As mentioned before, the most common one of the region formations is separating residences and working zones from each other. Daily trips help to determine the dominant roles of zones and show which zones work with more than one core, territory or region. It can be said that it is easier to obtain than other types of data. At the same time, a specific sample can be taken at a certain time interval and the purpose of departure can be classified. In this way, attractive aspects of zones, housing-leisure-working-etc., can be determined. This situation can give an idea on various topics such as core-territory-secondary core or information flows (Hall & Pain, 2006).

Although it is relatively easy to collect data about commuting flows, there is no direct and valid research but informal knowledge. Köroğlu (2012) mentions daily commutes in the Marmara region. According to his research, there are daily commuters between Kocaeli, Tekirdağ and İstanbul. A remarkable amount of the working population goes for work in one city while living in another. He highlights that mostly İstanbul is the residential and recreational area when Tekirdağ and Kocaeli iş working places (Köroğlu, 2012). This can be a small discussion about the region in terms of commuting. So, İstanbul, Kocaeli, Tekirdağ may be more relevant to discuss than the TR33 region which includes Kocaeli, Sakarya, Yalova, Düzce, Bolu. Sakarya, Yalova, Kocaeli and Düzce can be suitable to work on but Bolu is quite irrelevant as a part of the region in terms of commuting flows.

*Population and Migration:* The population alone is insufficient to give clear information about the region structure. However, it can give clues when viewed as population change. In this context, it can be said that the change due to migration has an effect rather than the effect of the birth rate. Migration data provides as much information about intra- or inter-connections as commuting flows. The population change in a given territory of the region or within the whole region indicates how much people are attracted or lost. This situation shows the history of socio-economic development in the territory. For example, while provinces in the east are gradually depopulating, the population growth in the west indicates a socio-economic weakness in the east and a loss of both residents and the labor force. Likewise, it can be said that it is more suitable for a territory that has the highest population change in the region to be the core because this area is socially and economically more attractive. It is not a stand-alone indicator, of course, but it is one of the strongest signs. In other words, the change in population shows how strong the impact of decentralization on jobs and population is. In addition, migration and population change play an important role in determining social mobility as it prepares the ground for changes in the social structure towards demand.

*Employment:* Workforce, which is a powerful parameter on its own, also provides reliable data by associating it with the change in the population. The labor force is essential to be economically powerful. In addition, it elucidates that places with high employment levels attract a labor force, thus showing economic power level. Also, the change in employment over the years gives clues about the course of the economy. When associated with the population change, the following inference can be made: If the population change rate is parallel to the employment change rate, it is more likely that the effect of economic change on population change is greater. However, if there is no consistency between the two rates of change, it is more likely that the reason for the change in the population is social development. An economically developed territory within a region means it has one of the core features. The high employment level is in a linear relationship with economic development.

**Transportation:** Mobility is one of the most critical and indispensable points for the region. That is, mobility is directly related to the development of the transport system. Any means of transportation is an indicator of how efficient the network structure the city region has. While rail and road transportation provides input about intra- and inter- regions, air and sea transportation mainly creates data about inter-region. The transportation network between region parts is significant when creating conceptual boundaries for a region. Accessibility is critical for manageable and coherent region determination. It can be said that multi-modal transportation shows that the urban-region has a more developed network structure.

By looking at Figure 2.1., it can be seen that there is a dense of mobility between some cities. Those are primary areas to examine because transportation density shows the relation capacity of the region. For instance, as a known functional region example of Turkey, İstanbul and its surrounding cities have pretty much traffic flow. Also, mobility is quite high between İzmir and its surrounding cities, another example of a functional region in Turkey. Thus, region perceptions of İstanbul and İzmir should be revised regarding mobility information.



Figure 2.1. Turkey Traffic Density Map

(Source: General Directorate of Highways (KGM), 2020)

*Telecommunication Traffic:* This data set includes telephone, mail, video, or telephone conference calls. The most challenging part of obtaining this data is the privacy issue. However, this problem can be solved by evaluating the data as regional rather than point-by-point and keeping the results confidential so as not to damage the clarity of the research. Classification of the communication flows is important for the correct understanding of the region. The biggest contribution to this data is to be able to determine information flows. Inter or intra-firm information flows and the other types of information transfers are important in determining the development and structure of regions. However, extracting the data is highly difficult.

*Relations between companies and suppliers:* This creates a complex data set to obtain. However, this data can also be obtained through data analysis performed by the GaWC Research Network. Their analysis uses a kind of proxy related to relations between office locations of firms instead of dealing with relations and real information flows between cities directly. According to this network, there is a potential flow of knowledge between the headquarters of the firm. This shows the connectivity between locations (Lüthi, Thierstein, & Goebel, 2007). The same situation can be established between companies and suppliers. It can be said that this situation, which creates an economic connection, affects both commuter flow and information flow. Also, this item can be associated with telecommunication flows. It can be predicted that a mail or phone call will be made within the company or between the company and the supplier.

*Employees and inhabitants:* According to the research carried out by Lüthi and colleagues, the interconnectedness of the regions is measured by determining the connectivity value chain based on the intensity of intra-firm relations. Significance values of the regions were determined by associating these with employees and inhabitants. Accordingly, a new input was created for the detection of the core city. At the same time, it was seen that Freising, as another territory at a critical point for Munich Region apart from the core, has the potential to carry core features such as company location selection (Lüthi, Thierstein, & Goebel, 2007). Also, as mentioned in the research, this data, which is mostly a confirmatory input for determining the

core city, cannot be the only indicator. For countries such as Southeast England and France, companies avoid choosing places in London and Paris even though these are core cities. On the contrary, although they are smaller, the intra-firm network is more developed in Cambridge and Rouen within an inter-regional context (Lüthi, Thierstein, & Goebel, 2007).

*Economic processes:* The agglomeration economy takes an important place in the region. This type of economy, which is the gathering force to the center, is based on the fundamentals such as economic ties, labor market depth, and information dissemination. In addition to this, a kind of economy that creates the centrifugal force significantly affects regions. Immobile factors, land rent (site selection), daily transportation costs etc., create a base for the distributor powers (Tekeli, 2004). It is highly important to examine these factors to understand the economic process and shape the region structure accordingly. For example, before the firms formed their workplaces in İstanbul because of high transportation costs. Then, they started to establish their branches and physical workplaces in surrounding cities because land rents increased in İstanbul. They built only their main service or sales office there. In this way, by economic process and changes, İstanbul became a region with its surrounding cities while it was one city.

*Self-contained and coherent areas (self-integrity):* There are many criteria for being self-contained and coherent. For the regions, this situation is based on data such as determining the potential and the utilization capacity of existing resources. It can be understood whether the region is self-sufficient and coherent or not as a result of the synthesis of other mentioned parameters. Therefore, these criteria can be evaluated at the synthesis stage rather than the initial determination stages of regions. In other words, it can be regarded as a criterion that makes a kind of check on other ones. In summary, the fact that the existence of each territory is explained separately and the process of developing these settlements together is an indicator of being self-contained.

*The functional urban region (FUR):* The concept, created by the Metropolitan Statistical Area, defines urban regions whose conceptual boundaries are defined functionally beyond physical and administrative boundaries and covers all areas that are in daily relationship with the core city. This concept is created to deal with problems such as losing meaning due to reasons such as overlapping boundaries, transition zones, and the need to make the land-use regulation system functional because of functional determination of administrative city units in the region (Hall & Pain, 2006). According to the research scale, FUR, which has a definition close to the concept of functional region, is a concept studied more in multi-region structure areas. For a country like Turkey, FUR should be accepted as a concept to be embraced by adapting its criteria to the region in order to determine regions. According to this; The Group for European Metropolitan Areas Comparative Analysis (GEMACA) criteria (Hall & Pain, 2006), whose parameters are taken as a measure within the scope of POLYNET research, which forms the basis of Hall&Pain's book;

**Core:** It was mentioned before that it is included in the functional region concept. Within the scope of GEMACA, the core is defined by employment size and density using NUTS5 units, which is the smallest unit where data can be obtained. According to this, cores are built on the basis of 7 or more workers per hectare and a minimum of 20,000 workers in either single NUTS5 units or adjacent NUTS5 units.

**Rings:** Rings that have a similar meaning with hinterland territories for the region, using NUTS5 units, define rings that 10 percent or more of the residents commute daily to work.

In Turkey, İstanbul can be seen as a FUR with its core; İstanbul, and rings; surrounding cities. Also, as a region, its boundaries are not completely overlap administrative borders. According to Köroğlu (2012); Şile (İstanbul), north of Çatalca (İstanbul), Kandıra (Kocaeli), Kaynarca (Sakarya), Ferizli(Sakarya), Karasu(Sakarya), Kocaali (Sakarya), Saray (Tekirdağ), Pamukova (Sakarya), Geyve

(Sakarya), Taraklı (Sakarya), Hayrabolu (Tekirdağ), Malkara (Tekirdağ), Şarköy (Tekirdağ), Muratlı (Tekirdağ), center of Tekirdağ are out of the region.

Conceptual boundaries resulting from the evaluation of all these parameters may overlap. These areas constitute the transition zones of regions. These zones are extremely important for regions and this feature is the main factor that separates this understanding from other approaches. However, policy-making becomes challenging due to these transition zones. The conceptual boundaries of the city region, which do not overlap to a large extent with the administrative boundaries, create an environment of policy confusion. The region's adoption of governance understanding independent from the state brings covering together participatory and collaborative approaches. This approach, which is not very common in Turkey's governance structure, requires a solid foundation for establishing the governance structure. Therefore, establishing a new governance organization between private and public may be necessary for a structure suitable for the intermediate region scale.

## **2.6 Functional Regions in Turkey**

As a reference of the first formation process of functional regions in Turkey, the study of İlhan Tekeli and his colleagues 'Development of Istanbul Metropolitan Area and Low-Cost Housing', published in 1992, can be given. Istanbul province, which is considered in this study, can be given as an example of the first process of functional region formation. According to the study, after 1960, production jumped from the Istanbul central business area to the surrounding areas. However, settlements disconnected from the central city did not occur. The jumps were a short distance away, and the empty spaces in between were filled in a short time. In this way, the space between the settlements was not in a hollow structure.

In the study, Istanbul was defined as a monstrous industrial city, not a metropolitan city. In big cities such as Istanbul, which can also be generalized for big cities of developing countries, if the share of spontaneous developments besides planning

studies is high, the city's growth faces obstacles. In such conditions, since the local government's resources and powers are insufficient, the central administration directly implements them. However, this process can be interrupted in certain periods due to the limited resources and resistance to legal difficulties. So it can be said that there is no stable planning (Tekeli, 2004). From this point of view, it can be said that the need for mid-scale planning started and continued during these periods.

According to Tekeli, two ways can be followed to understand the region formation. The first is the acceptance that all of the settlement forms and the formation processes are the same. The other is to accept that different processes can create the same settlement forms. According to the second way, the first way is possible but insufficient. When these are evaluated according to the structure of the region, it can be said that the second way is more traceable. Thus, the company of the processes that create similarities can be mentioned. For example, constantly spreading decentralization of the capital in Istanbul, the tendency to leap into the environment in order to escape from the land rent, and the fact that the landowners could not find the opportunity to realize their expectations prepared the ground for the Istanbul region, while the process in İzmir is different. The growth of multiple small centers formed in a productive agricultural structure in parallel with the increase in the urbanization rate of the country and the articulation of some of them directly into the global economy constitutes the process of the Izmir region. Accordingly, while the similarities come from the functioning of the capitalist system, the differences are the connections that direct the process within the diversity of the social structure (Tekeli, 2004).

İstanbul-Kocaeli, İzmir-Manisa and Adana-Mersin are functional regions that are the most evident ones in Turkey. As explained by Tunga Koroglu, relations between their parts are not limited by exact administrative borders and there is a daily interaction. The most obvious indicator is that the labor market exceeds the borders of cities. People commute daily and regularly from one area to another to work or socialize. As a result, spatial extension follows that. Mobility is an important parameter of a functional region. Mobility can be the result of the labor force or

recreational and commercial activities. In this respect, labor force mobility around İstanbul is not limited by the administrative city borders of İstanbul. Around the city, Tekirdağ, Kocaeli and Sakarya are related to labor. It can be observed in Figure 2.2 there is daily labor and good flow between those settlements. Even a part of Bursa and Yalova also can be counted because they are important connection points for transportation and economic routes. Moreover, industry shifts from İstanbul and other cities to not only Kocaeli but also Bursa. Kocaeli and the other cities can have different perceptions and approaches for spatial organization, but they cannot be independent of İstanbul and the other parts of the region in terms of economic and social improvements. There is a daily and regular transport flow between the cities and surrounding areas. People commute from their residence to their workplace because they work in parts of the region where central business district characteristics are seen. Thus, some parts of the region act as residential and recreational zones and some act as working and commercial zones.

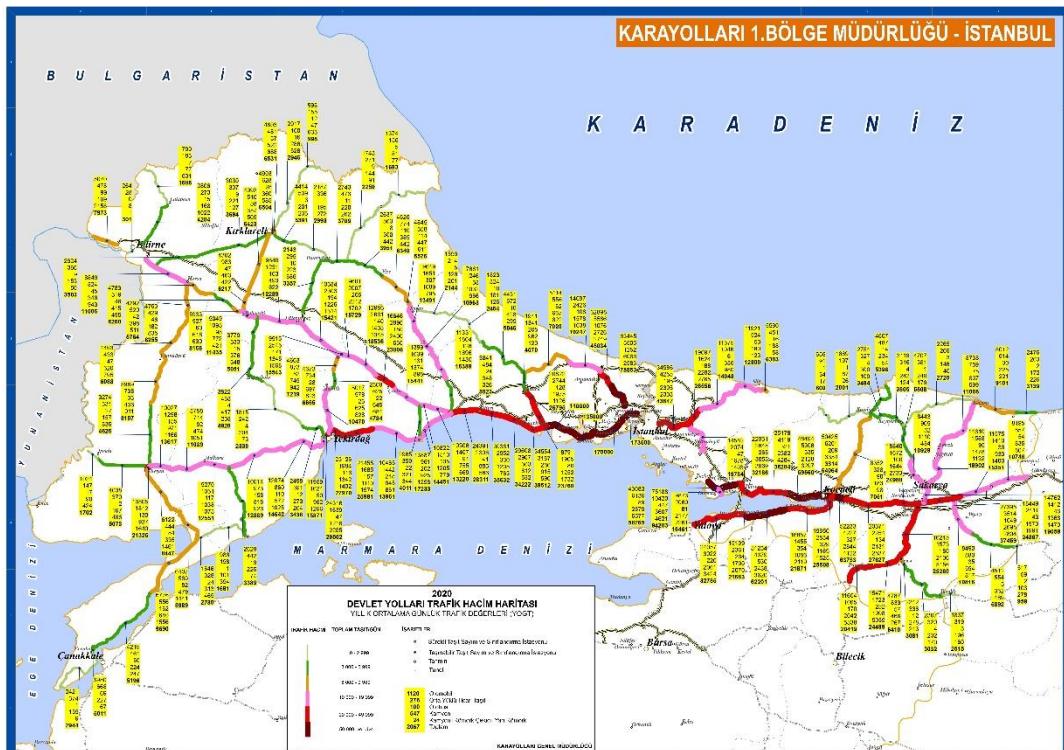


Figure 2.2. İstanbul National Highways Traffic Volume Map  
(Source: General Directorate of Highways (KGM), 2020)

As with the İstanbul region, İzmir and Manisa have a similar relationship. The organized industrial zone in Manisa and industrial development of Kemalpaşa provide cross-border interactions to those cities. In the İzmir region, there is a density of daily commuting between parts. Also, as similar to İstanbul, Manisa acts as a working zone and İzmir has the role of the residential and recreational zone (Köroğlu, 2012).



## **CHAPTER 3**

### **REGION APPROACH IN TURKEY: NUTS2**

#### **3.1 History of Turkey's Regional Boundary Approach**

Tekeli (2004) defines city-regions, which are examined under the functional regions, as 'engines of the global economy'. There are many different ways in the formation of functional regions in a particular zone. It would not be accurate to argue that every city will evolve to a functional region eventually. Still in Turkey, there are some clues that form grounds to discuss the existence of functional regions. Also, the current region approach advocates it has similar goals with the functional region approach. However, it is disputable whether the current approach achieves those goals or not. In order to conduct such a discussion, it is first necessary to examine the region approach in Turkey.

Turkey's first municipal administrative boundaries emerged by adopting the Ottoman administrative organization and surrounding the existing built-up areas after the proclamation of the Republic. In other words, municipal boundaries have been determined not as a result of determining the targets, making analyzes and planning for the future, but only with the acceptance of the existing borders (Köroğlu, 2012). However, regional planning started to be considered as important in those years and four different economic development processes have been undergone since the proclamation of the republic in 1923 (Uzun, Sarı, Özdemir, 2019).

Urbanism was stable before World War II. Still, the development of transportation brought cities in spreading out to the limits of infrastructure. The Great Depression was one of the effects on economic and political decisions. Central government dominated the economic conditions around the country and protectionism was directing economic policies (Uzun, Sarı, Özdemir, 2019). After the war, also in

Turkey, urbanization has gained pace with the increase in the rate of migration and the intensity of industrialization activities. The population of many cities started to grow 2-3 times their natural growth rate, which was valid only for the province of Ankara before the war. This means that the limits defined by Municipal Law No. 1580, adopted in 1930, have been pushed. This problem was tried to be solved by revising and expanding the municipal borders, which is only a short-term solution, in a fast but not effective manner. The problem was suspended periodically (Köroğlu, 2012). In developing and changing urban areas, the development of an intervention form with administrative borders based on geographical data alone instead of implementing the most suitable solution for the field with long-term goals due to social, economic and spatial analysis reveals the insufficiency of the solution in scope and capacity.

Because of the inefficiency of the boundaries defined in the law adopted in 1930 and the subsequent border changes, Development Law No. 6785 was adopted in 1956. This law introduced the concept of '*mucavir alan* (adjacent area)', which means the neighboring area of a specific municipality border (Köroğlu, 2012). In another saying, this concept, which means that some of the areas outside the municipal boundaries are secondary areas where municipalities are obliged to provide services, is a border-bound and distance-oriented solution similar to only modifying administrative borders in response to the development of the city.

Cities have reached limits and could not spread out more due to lack of infrastructure (Uzun, Sarı, Özdemir, 2019). With the acceleration of urbanization, the housing shortage started. This situation brought squatter housing into the city where infrastructure is not sufficient. The idea of the villagers staying in the village is dominant. For example, Istanbul, where squatter houses are seen most intensely, has grown excessively and has experienced an excessive and unhealthy accumulation. This situation showed itself in the form of flashy investments in development policies to solve big city problems. Also, this was reflected in such a manner that unplanned development was among the reasons for the military intervention in 1960. Then, Marmara Planning Organization was established in Istanbul. The National

Five-Year Development Plan and the Eastern Marmara Region Plan have been prepared. It can be said that urbanization strategies were determined for the first time with these plans and the first meaningful steps were taken for the urban-regional approach (Tekeli, 2004).

In addition, whether there are metropolitan areas in Turkey or not and the policy approach to these areas was also discussed in these studies. This brought in the Istanbul, Ankara and İzmir Metropolitan Planning Offices, which were established in 1965. The establishment of these offices aims to find answers to three problems. The first one is the establishment of coordination between the municipalities and the provincial practices of the central government. Another is that the existing development legislation can be opened to upper-scale plans within its closed structure. The last problem is the need for a paradigm shift in urban planning (Tekeli, 2004). As these efforts demonstrated, it can be mentioned that the lack of intermediate scale was sensed in Turkey. Although it is not possible to talk about a complete functional region formation in this period, it can be said that the search for a different administrative approach, spatial perception and scale was made in cities that gradually evolved and formed the functional region ground. However, these efforts have not been adequately observed in practice.

After the 1970s, the high-income class of society moved from the inner-city as a result of an increase in car ownership and suburbs were established. Improvements in infrastructure and transportation caused the decentralization of industrial production. Furthermore, there were problems in practice, although metropolitan planning and its institutional structure have been formulated (Uzun, Sari, Özdemir, 2019). Until the 1980s, the city growth which was not desired was handled with borderline solutions consisting of changes in administrative borders and the borders of adjacent areas. In these years, some policies for squatter's houses surrounding the city peripheries as a result of the rapid increase of the population in urban areas have been made. Laws No. 2805 and 2981 (Law on Some Processes to Be Applied To Buildings Against Development and Squatter Houses Legislation and Amending an Article of The Development Law No. 6785), which came into force in 1980, and

Law No. 3194 (Development Law), enacted in 1986, includes articles on land speculations and competent confusion that began in these areas, which were added to the city over time and became a part of the city (Köroğlu, 2012). The first time in Turkey, Law No. 3194 mentioned regional plans at a distinct planning level even though there were a few plans accepted at regional scale which are not come into practice because of legal deficiency (Ersoy, 2011). At the end of this process, Law No. 5747 (Law on the Establishment of District within the Boundaries of Metropolitan Municipality and Amending Some Laws) came into force in 2008.

Regarding the law, problems that have been tried to be solved by the borders but could not be achieved are wanted to be solved by borders again. Also, the Law brings on the agenda population for especially in the areas outside the *buyuksehir* municipalities. In addition, the municipalities that are not *buyuksehir* municipalities are far from being a guiding role in the holistic future of the city due to their inability to interfere outside their borders (Köroğlu, 2012). Even if it was seen that the administrative structure was changed with the changes made at the borders, it could not bring an integrated perspective to the desired level. The search for a distance-oriented solution could not be surpassed entirely and relation-oriented solutions could not be established where it was overcome.

It should be noted that urban development does not always overlap with administrative borders. This is particularly true for the cities which are not metropolitan areas. However, in Turkey, the administrative boundaries and authority area of the central municipality are politically accepted as boundaries of urban development in metropolitan areas. In other words, the feature distinguishing neighborhoods and villages in cities depends only on population and distance from the center (Köroğlu, 2012). In *buyuksehir* cities, only the administrative borders of the province are considered, and no distinctive criteria are specified.

Similar to the relationship between people and authority, which interpreted by Köroğlu in 2012; if a district or a specific region is administratively dependent on a different city, even if it affects another area socially and economically, it cannot

receive service from or serve to that area and it is ignored administratively by disregarding its interaction with the city/settlement. As a result, this region's effect is considered the same as a completely independent area. This interpretation shows the general position of Turkey's region approach, which is basically built on the NUTS regions system. NUTS system and current region approach of Turkey is on the same basis with the past of the regional perception.

### **3.2 NUTS (Nomenclature of Territorial Units for Statistics) Regions and Development Agencies**

In 1981, it was decided by the European Statistical Office (EUROSTAT) to create NUTS regions in order to divide European Union countries into statistical regions. The use of the NUTS system developed by EUROSTAT is based on getting rid of inter-regional imbalance in the member countries and realizing the utilization of the funds provided by the Union on the common ground. As a result, it is intended to make data of each region comparable and determine the differences between regions (Kayalak & Kiper, 2006). Then, it was made compulsory to use the NUTS regional system in the member countries and candidate countries in 1988. The integration process of the European Union has made it necessary to restructure local governments. Correspondingly, the Maastricht agreement, signed in 1996, emphasized the principle of subsidiarity and envisaged the decentralization of regional plans (Taş, 2006). The NUTS classification has been in use on the official funds since the Community Legislation No 2052/88 adopted on 24 June 1988, which was published in the official newspaper on 15 July 1988. However, with the increasing importance of the issue, its legal use started with the legislation (dated 26.05.2003 and numbered 1059/2003) about NUTS approved by the European Parliament and Council after a 3-year preparatory work (Şengül, Eslemian, & Eren, 2013).

The names of regions or states were not mentioned in the Founding Treaties of the European Union. Regions started to be represented within the EU only by the

Regional and Local Governments Commission in 1988 and it can be said that they gained their current importance with the Treaty of Maastricht (Hasanoğlu & Aliyev, 2006).

In the First Geography Congress, which came together on 06-21 June 1941, Turkey is divided into seven major geographic regions depending on the conditions of the day. Those seven regions can be seen in Figure 3.1. However, at the beginning of the 2000s, Turkey was acquainted with a new region concept. Ensuring a fair distribution of economic welfare in different segments of society and between regions emerges as a requirement of the social state understanding of today's societies (Taş, 2006). In this direction, Turkey entered the process of rapid structural change with the European Union (EU) adaption period and globalization. In this process, reducing the development disparities among regions by rational evaluation of physical, social and cultural resources has gained importance (Kayalak & Kiper, 2006).

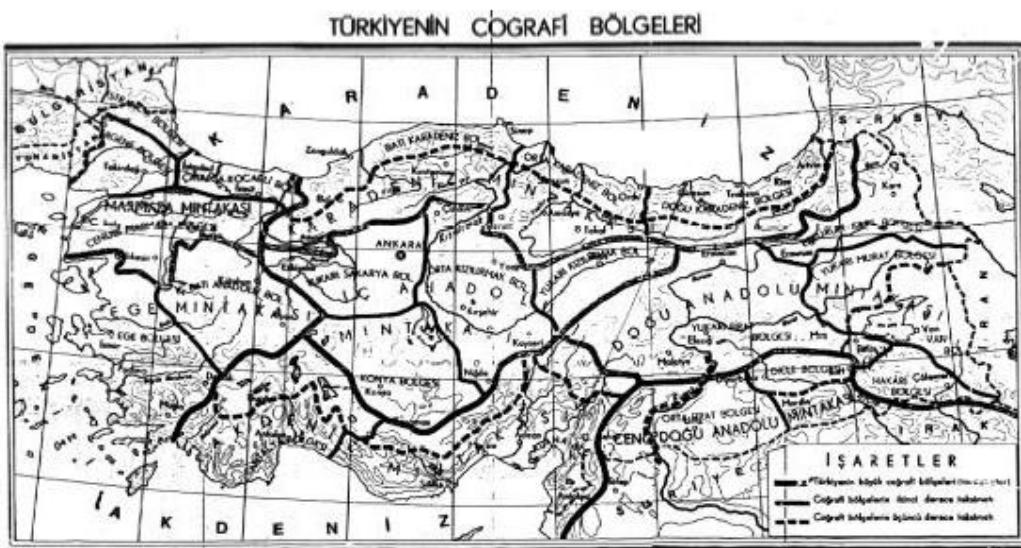


Figure 3.1. Seven Geographic Regions in Turkey

(Source: First Geography Congress, Reports, Negotiations, Decisions, Board Of Education, Ankara, 1941)

The European Union accepted Turkey as a candidate country at the Helsinki summit in December 1999. Turkey signed the document of The Accession Partnership to the European Union and prepared the National Program to implement requirements for

candidacy. The first stage of integrating candidate countries into the European Union is creating NUTS (Nomenclature of Territorial Units for Statistics) regions. To determine the NUTS regions and make plans on the country or a regional scale according to these regions is a criterion in order to be a member of the EU (Taş, 2006). Accordingly, in 2001, it was started to determine the statistical regions regarding the National program. The State Planning Organization (SPO), Turkish Statistical Institute (TURKSTAT) and the Ministry of Internal Affairs have been appointed for this process. As a result, the NUTS report, prepared by TURKSTAT and SPO in 2001, was published in the Official Gazette dated 22 September 2002 and numbered 24884 by the Cabinet Decree No. 2002/4720 (Şengül, Eslemian, & Eren, 2013). NUTS2 regions related to this research can be seen in Figure 3.2.

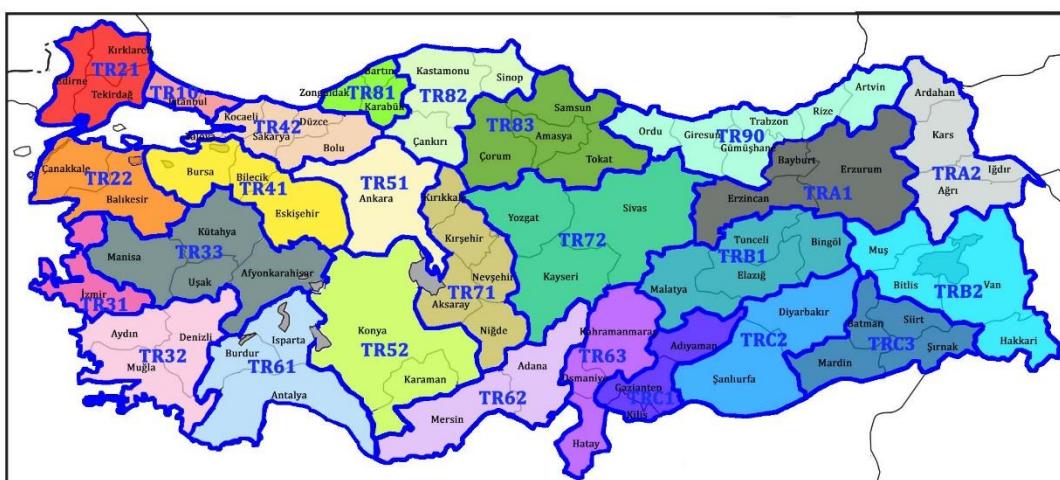


Figure 3.2. NUTS2 Regions of Turkey

(Source: Mapped by the author according to Law No. 5449 - Appendix 1)

Eurostat envisages regional plans to be made according to NUTS2 regions. In other words, development plans to be prepared for each country or the whole of the union are made based on NUTS2 regions (Taş, 2006).

Expectations according to the law made to prepare regional development plans in NUTS2 regions are following (Tas, 2006);

- Development of national economic and social adaptation policies aimed at reducing regional disparities,

- Adopt the legal framework to facilitate the implementation of the legislation in this regard,
- Preparation of long-term budgets that set priority criteria for public investments in the regions,
- Strengthening the administrative structures that will carry out regional development

NUTS classification in Europe was created by taking into account three basic principles. The first is that each country's existing regional divisions form the basis for the NUTS classification. The other criterion is based on the logic of creating regions by bringing together areas with the same potential. The last criterion is population. In Turkey, the current geographic regions have not been considered in the determination of NUTS regions. Region boundaries have been determined depending on many criteria; the amount of population comes first among these criteria. While determining the NUTS regions in Turkey, administrative integrity was also protected and region boundaries were determined according to provincial administrative areas (Taş, 2006). In Turkey, "the region" which is considered within the frame of the local organization of the central government; refers to a wider geographical area than the province, created by clustering several provinces (Hasanoğlu & Aliyev, 2006). There are 12 NUTS1, 26 NUTS2 and 81 NUTS3 regions in Turkey.

The utilization areas of NUTS are (Hasanoğlu & Aliyev, 2006);

- Collection, development and harmonization of regional community statistics;
- Performing social and economic analysis of regions
- Establishing the framework of the regional policy of the community.

Then, the 2003 Accession Partnership Document mentioned the establishment of RDAs to benefit from the pre-accession financial assistance program. In the following period, the draft law on development agencies' establishment, coordination, and duties was brought to the agenda (Berber & Çelepçi, 2005). In reality, on the basis of the creation of NUTS regions in Turkey lies the necessity of

the establishment of Regional Development Agencies. The national program prepared after the accession partnership agreement was signed with the EU made it mandatory to determine NUTS regions since it sees NUTS regions as a prerequisite for the establishment of Development Agencies (Taş, 2006). The main institution of the new approach is regional development agencies (RDA). The main objectives of regional development agencies aiming to eliminate regional development disparities are to revive the economy in the region by providing services, increasing regional investments, and ensuring the participation of the region's people in development (Berber & Çelepçi, 2005).

Development agencies are the most essential institutions determining how the region's current potential can be best used. For this purpose, the European Association of Development Agencies (EURADA) was established and made significant contributions to the establishment and improvement of development agencies in European countries (Berber & Çelepçi, 2005). As a common saying, development agencies are structures that support improving the competitive capacity of each region and they are dependent less on the resources of the central government. On this point, RDAs take responsibility for being a mediator of central authorities, locals and the other actors (Eraydin, 2010).

RDAs are agencies established in an administrative structure independent of the central government, intending to develop the socio-economic conditions of a bordered region. The first example in this regard is the establishment of the Tennessee Valley Authority (TVA) in the USA in 1933 (Berber & Çelepçi, 2005). Before 2007, the GAP was the only organization on a similar basis to development agencies. İzmir and Çukurova Development Agencies were established as pilot in 2007. Then, agencies of each NUTS2 regions started to operate in 2009. Their main aim was to ensure regional development of the regions (Özdemir, 2019). Conversely, in Turkey, Regional Development Administrations were established in 2011. Their borders do not overlap with NUTS2 regions as seen in Figure 3.3. This brings in a discussion about different borders and the management of different regional development institutions (Karasu, 2015).

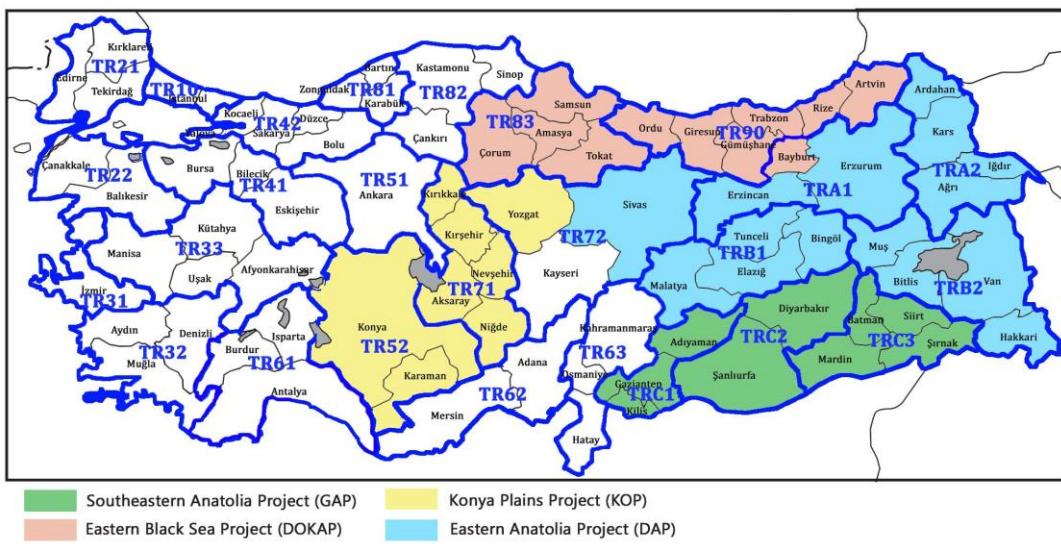


Figure 3.3. Regional Development Administrations and Borders of NUT2 Regions  
(Source: Mapped by the author according to; <http://www.gap.gov.tr/il-profilleri-sayfa-137.html>, <https://www.dokap.gov.tr/dokap-illeri/sayfa/71>,  
<http://www.kop.gov.tr/sayfalar/kop-illeri/63>, <http://www.dap.gov.tr/baskanlik/dap-bolgesi-i%C2%B7lleri/>)

The main reasons for the RDAs in practice can be counted as; applying regional strategies, supporting local and regional entrepreneurship, helping to provide infrastructure services, researching local-regional solutions for the private sector's near future, and seeking financial guarantees and solutions for the production of new products and services to meet regional demands. However, the law about the issue (Law No. 5449 - Law on the Services of Development Agencies) does not define RDAs' duties and scope of authority in detailed (Lagendijk, Kayasü & Yaşar, 2009). EURADA has defined the RDA as follows: a RDA identifies sectoral and general development problems, identifies opportunities and solutions for their solution, and supports projects that develop these solutions. Although these are areas of operation, some RDAs do not fully comply with these definitions. While some of them are mainly engaged in foreign investment, the only common feature of RDAs is that they are about developing the inner potential in a geographical area (Berber & Çelepçi, 2005).

Contrary to the indiscriminate redistribution programs of central governments, RDAs' policies have to be more selective as they are regionally targeted. In this case, RDA policies are important due to their development characteristics (Berber & Çelepçi, 2005). The regional planning approach of agencies combines top-down and bottom-up approaches and it is flexible (Özdemir, 2019). The most apparent purpose of RDAs is to revive the region's economy and ensure that the people of the region participate and benefit from the development with the policy they have developed by taking into account the potential and problems of the regions. In other words, the objectives of RDAs can be classified as economical in terms of creating favorable conditions for long-term regional economic development, environmentally in terms of increasing the attractiveness of the region, and socially such as ensuring the development of socio-cultural values of the region (Berber & Çelepçi, 2005). As another saying, the approach of RDA's should be to identify local needs, use local potential, ensure participation and create common shared solutions (Özdemir, 2019).

RDAs can be classified according to their bureaucratic structure, autonomy, establishment goals and actions. The main distinction between RDAs can be determined by being within or outside the core administrative structure of the broad political government. According to their founders, RDAs can meet in four main groups (Berber & Çelepçi, 2005);

RDA's established:

- by central governments
- by local governments
- by local and regional governments
- with public-private partnerships

Although RDAs operate independently from the central government and operate on a regional basis, most of them are established by central governments (Berber & Çelepçi, 2005).

RDAs are financed from the general budget and private funds, and the government has an initial capital allocation in cash and real estate. In addition, agencies receive loans by offering projects to various government funds to support industrialization. Funds are provided to RDAs by the European Union and the World Bank. But this is not a general or regular income (Court of Accounts, 2019). The "European Regional Development Fund" (ERDF) and the "Structural Instrument Fund for Pre-Participation" (SIFP) come into play about financing. While ERDF, which is one of the structural funds of the EU, is given to countries with structural difficulties in order to develop infrastructures, prioritize local development and adapt to global competition, SIFP is given for infrastructure projects of countries that are candidates for EU accession (Berber & Çelepçi, 2005). In addition, some agencies provide funding from the private sector and local businesses. On the other hand, the funding sources of most RDAs consist of aids.

NUTS region approach is adopted as a compulsory situation. It is not like an approach because there is no well-formed principle set. There is only the law about RDAs that are established for the management of NUTS regions. The law provides a legislative framework but cannot ensure practical reflections on the region if it is based on contradicts. The theory of the NUTS system is open to discussion about that it is functional, practical and logical. However, even the theoretical background of the NUTS system does not coincide with the practice in Turkey. The law about RDAs is almost completely in conflict with itself and the basis of NUTS.

### **3.2.1 Law on the Services of Development Agencies**

Important articles related to the legal framework of the agencies within the scope of the Law on RDAs No. 5449 and dated 25.01.2006 are as follows:

Article 1: While this article explains the purpose of making the law, it also explains the establishment purposes of development agencies. It was mentioned that Development Agencies had been established in order to "accelerate regional

development in accordance with policies included in National Development Plan and Programs, ensure its maintenance and reduce inter and intra-regional development disparities by developing cooperation between public, private and non-governmental organizations, ensuring use of resources effectively and reviving local potential."

Article 2: In this article, the definition of the region is made. According to the definition, the region refers to the "Level II Statistical Region Unit" which is NUTS2 regions.

Article 3: It is said in the 3rd article that "Agencies are established on the basis of regions by Cabinet Decree upon the proposal of the Minister which the Undersecretariat of the State Planning Organization is affiliated to" and, "The Council of Ministers is authorized to reorganize the regions and to remove the established Agency". As can be seen from here, the operability of the agencies depends on the central government.

Article 5: This article clarifies the duties and authorities of agencies.

Article 8: It explains the formation of the Development Board. In addition, it is stated that the Development Board will be in a structure to ensure a balanced representation of the provinces.

Article 25: It is stated that "The Ministry of Internal Affairs is authorized to take necessary actions regarding the issues that constitute a crime as a result of external audit, Undersecretariat of State Planning Organization is authorized to make performance evaluations and take necessary measures."

Provisional Article 3: It is stated that "The works and transactions carried out by the project units established for the purpose of execution and coordination of regional programs conducted within the Turkey-EU financial cooperation in the regions, the rights and obligations related to them, and all movable goods are transferred to the relevant agency within one month after the establishment decree enters into force."

According to this, the previous regional project units, like GAP, were the previous Development Agency functionally.

In summary, establishing regional development agencies and adopting a middle-scale region approach are not indefensible actions. However, these are not as supposed to be in practice. No clearly and strongly identified legislation about the scope, process and framework of regional plans is an important issue to be reevaluated (Özdemir, 2019). Due to the lack of authorisation and resources allocated to RDAs, they cannot have a proactive role in regional development (Lagendijk, Kayasü & Yaşar, 2009). Moreover, as ordered by Eraydın in her study (Eraydın, 2010), development agencies and regional approach should be interiorized, which means each stakeholder of the development process should be convinced RDA's are competent actors to prepare development plans and to carry out the process. Also, the aims, duties and responsibilities of RDA's should be reconsidered and revised because today in practice, the origins and current status of NUTS regions do not advocate the same administrative and operational mentality.

## **CHAPTER 4**

### **EVALUATING THE PROMISES OF NUTS REGION APPROACH IN TURKEY**

In the concept of region understanding in Turkey, the region represents NUTS2 regions adopted by the EU harmonization process. Although this situation is based on controlling and coordinating the fund distribution in the country, it is seen that it has not been achieved. In addition, considering a concept, which affects every social and economic situation in the regions and even represents a mechanism used to control the distribution of investments and funds at this level, as a ready-made 'product' that is accepted only according to the distinctions that come with the process of harmonization with a union indicates that the same 'product' can be destroyed with the breakdown of the loyalty to the union. This situation arises from the fact that understanding is not based on solid foundations.

As mentioned in the previous section, perception of the region in Turkey is determined by mostly the boundaries of Regional Development Agencies, a requirement directly brought by the European Union compliance process and the fact that its validity level on a regional scale is limited. The boundaries of the regions coincide with their administrative boundaries and do not make any functional sense. This situation and the reasons why the current regional understanding should evolve can be clarified by examining Law No. 5449 that is the manifestation of the current understanding, explaining the inconsistencies in the law and invalidity and failure of predictions in practice according to the current conception in Turkey.

#### **4.1 Law No. 5449 - Presidential Decree No. 4**

Law No.5449 (Law on the Services of Development Agencies), was adopted on 25.01.2006 and entered into force by being published in the 08.02.2006 dated Official Gazette, is a manifesto for the current of understanding in Turkey that forms the basis of NUTS regions. Name (Law on the Establishment, Coordination and Duties of Development Agencies) and content changes have been made in the Law by 02.07.2018 dated Decree-Law No.703. Many law articles have been invalidated with the decree-law numbered 703 and the organizational structure has been subordinated to the presidential decrees. So, Presidential Decree No.4, the last and current state of the law, was published in the Official Gazette dated 15.07.2018 and numbered 30479 and the 16th section of the document is about development agencies. (\*Due to the lack of distinct differences between the first law published and the Presidential Decree No.4, the law will be taken as the basis in this study and the presidential decree will be referred to where necessary.)

The law about Regional Development Agencies (RDAs) can be accepted as the law on NUTS regions because RDAs sign different aspects of the same approach for Turkey and share the same basis with NUTS regions. The inconsistencies of the mentioned law within the framework of the current regional understanding and why the current understanding has an unacceptable perspective are explained in this chapter.

The first article of the law, numbered 5449, mentions the aims of the law. Accordingly, "ensuring the proper and effective use of resources and activating local potential" is among the establishment goals of RDAs. According to the research conducted in 2013 (Şengül, Eslemian, & Eren, 2013) to determine the economic activities of the NUTS2 regions and based on the years 2007-2008; approximately half of the regions in 2007 and one-third in 2008 were determined to be inefficient. As mentioned in the same article, more important than the size of the investments is the efficient use of the investment. However, DEA (Data Envelopment Analysis), which is a non-parametric efficiency measurement technique developed to measure

the relative efficiency of economic decision units that are similar in terms of the product or service they produce, is conducted within the scope of the research. This analysis shows that the economic activities of the regions are insufficient and the resources are not used effectively. For example, while the public investment and investment with incentive certificates used by the TR90 region are more than the TR31 region, the employment generated by the incentive certificates is at the same level as TR31. In other words, it produced the same output using more input as a region using less input. Therefore, it is considered to be ineffective (Sengül, Eslemian, & Eren, 2013). Also, according to the regional differences research for NUTS2 regions conducted by Kayalak and Kiper (2006), Turkey has been separated into two parts as west and east. These two parts have been discussed through Discriminant Analysis and this shows that the separation of Turkey as west and east is about 83% valid. In other words, inter-regional disparities in Turkey are about 83%. According to Kayalak and Kiper, one of the main reasons for this situation is the inefficient use of available resources (Kayalak & Kiper, 2006). As can be seen from these two examples and analyses, the aim of ensuring the proper and efficient use of the resources mentioned in the first article of the law cannot be realized.

Reducing inter-regional and intra-regional development differences within the same article is counted among RDAs' goals. In fact, this goal is important before the EU harmonization process. However, there was no success throughout the process. In the eight development plans prepared, reducing the interregional development disparity has been accepted as one of the main objectives. The proposed policies within the scope of the plans, on the other hand, increased the differences between regions rather than eliminating them. As important indicators of this, the distinct and noticeable socio-economic difference between the west and east of the country and the dominance of Istanbul and its surroundings can be counted.

After the EU harmonization process, it is a matter of discussion to what extent RDAs, which integrate with policies that support interregional competition, can achieve the aforementioned goal. Hasanoğlu and Aliyev stated that the experiences of some of the EU candidate countries indicate that regional policies increase inequality rather

than bring equality (Hasanoğlu & Aliyev, 2006). Furthermore, Webb and Collis argued that competition makes regions hurt each other rather than improve them (Webb & Collis, 2000). Indeed, it may not be a wrong policy to defend the competitive environment, but competition policy can be supported by providing an equal environment for all regions. However, there is a map prepared by OECD for Turkey, which is shown in Figure 4.1. This map shows the competitiveness of NUTS2 regions regarding analysis on small and medium enterprises and entrepreneurship, technology and innovation, education and skills, labor market, infrastructure health and environment. So, when comparing priorities in support, incentives and investment, according to the competitiveness of the map of the region, it is seen that the competitive environment is only overwhelming for some regions. In this case, there is no basis to sustain the losing regions in competition. Competition is not a policy aimed at eliminating inequalities but rather increasing the dominance of the dominant.

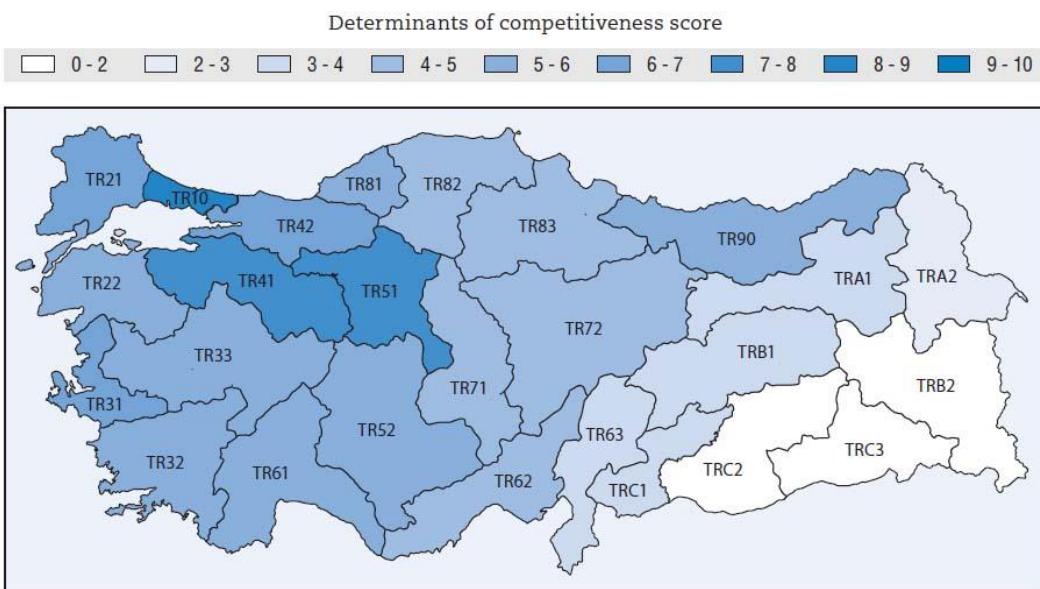


Figure 4.1. Assessing Regional Competitiveness in Turkey

(Source: OECD, 2016, Assessing Regional Competitiveness in Turkey, Paris)

The second article of law no.5449 contains the definitions of some concepts in the law. According to this article, the concept of "region" refers to the NUTS2 regions in the annex of the law, as shown in Table 4.1. This situation shows the advent of

understanding based on the NUTS2 regions in Turkey. The NUTS2 regions, which are determined only on the basis of administrative boundaries and distance-based proximity, show the conceptual deficiency of the regional understanding within the country and give rise to the thought that they are restricted beyond certain borders.

The other article of the law on Development Agencies mentions the foundation principles of the agencies. As stated in article 186 of the Presidential Decree No.4; "... It is established by the decision of the President (by decision of the Council of Ministers upon the proposal of the Minister to which the Undersecretariat of State Planning Organization is affiliated - the phrase in the first state of the law)." and "... the President (Council of Ministers - the phrase in the first state of the law) is authorized to reorganize the regions and abolish the established Agency.". Development agencies adopt an organization independent of the state at the international level. However, development agencies are established by the state in many countries, including Turkey. This situation is contrary to the formation principles of development agencies. Even that can be seen in the written statements, the President in Turkey (State Planning Organization and Council of Ministers) is in direct relationship with the agencies. So, also this situation conflicts with the principle of independence.

The fourth and fifth articles are also parallel to the third one. The fourth article of the law states that the agencies are coordinated at the national level by the State Planning Organization (today; Ministry of Industry and Technology - article 187 of the decree) and mentions the powers and responsibilities of the SPO (Ministry of Industry and Technology - article 187 of the decree). This situation shows that one of the state bodies is one of the agency actors, so there is a complete violation of the principle of independence. It is even a total dependency on state organs. This can be interpreted as regions are constrained by administrative boundaries as well as governance boundaries. A law that serves as an incompatible manifestation with the basic principles of the regional understanding is an indication for the understanding is not based on solid foundations.

Article 5 also lists the duties and powers of the agency. When the duties and powers given to the agency are examined, it shows that the agency can be explained with definitions such as "consultant", "support unit" or "researcher". The powers and responsibilities given to the agency are insufficient for such a regional understanding, given the foundations on which it was established. Also, the Development Agencies General Audit Report-2018 prepared by the Court of Accounts in 2019 mentioned about the issue of development agencies being a consultant. In the report, a sub-title is designated for the fact that regional plans prepared by development agencies that are important for regional development do not get into practice effectively, they are accepted as intention documents and they cannot be able to function completely (Court of Accounts, 2019).

Article 6 of the law deals with information gathering, and the third section of the law, covering articles 7 to 17, mentions the agency's organization. These have no effect on explaining and interpreting the understanding of the region.

The fourth section of the law deals with personnel regime, budget and controls. The striking thing within this chapter is that the primary decision-maker regarding the budget and audit is the State Planning Organization (Ministry of Industry and Technology - articles 205 and 207 of the presidential decree). From budget decisions to annual audit reports, many duties are under the control of the State Planning Organization (Ministry of Industry and Technology). This situation leaves question marks about the possibility of opinion conflicts between the State Planning Organization (Ministry of Industry and Technology) and the agency because its affiliation undermines the ability of the agencies to make free decisions. There is also a violation of the principle of independence here, as in many of the previous articles.

Other articles supporting this point are articles 28 and 29. As clearly stated in these articles, 'ensuring the coordination of development agencies and conducting business and operations related to them' has been added to article 2 of the Decree-Law No.540 dated 19.06.1994 on the Establishment and Duties of the State Planning

Organization. Also, "developing projects to solve the problems that may arise during the implementation of structural adjustment policies and coordinating the work to be done on these issues" has been added to article 14. However, these articles have been in practice for about five years, and with the abolition of the State Planning Organization in 2011, these articles have ceased to function. Related articles are also not included in the mentioned decree law numbered 703. The articles of the law that are not mentioned do not have importance in explaining region perception in Turkey.

Table 4.1 NUTS2 Regions List in Turkey

NUTS2	Provinces
TR10	İstanbul
TR21	Edirne, Kırklareli, Tekirdağ
TR22	Balıkesir, Çanakkale
TR31	İzmir
TR32	Aydın, Denizli, Muğla
TR33	Afyonkarahisar, Kütahya, Manisa, Uşak
TR41	Bilecik, Bursa, Eskişehir
TR42	Bolu, Düzce, Kocaeli, Sakarya, Yalova
TR51	Ankara
TR52	Karaman, Konya
TR61	Antalya, Burdur, Isparta
TR62	Adana, Mersin
TR63	Hatay, Kahramanmaraş, Osmaniye
TR71	Aksaray, Kırıkkale, Kırşehir, Niğde, Nevşehir
TR72	Kayseri, Sivas, Yozgat
TR81	Bartın, Karabük, Zonguldak
TR82	Çankırı, Kastamonu, Sinop
TR83	Amasya, Çorum, Samsun, Tokat
TR90	Artvin, Giresun, Gümüşhane, Ordu, Rize, Trabzon
TRA1	Bayburt, Erzincan, Erzurum
TRA2	Ağrı, Ardahan, İğdir, Kars
TRB1	Bingöl, Elazığ, Malatya, Tunceli
TRB2	Bitlis, Hakkari, Muş, Van
TRC1	Adıyaman, Gaziantep, Kilis
TRC2	Diyarbakır, Şanlıurfa
TRC3	Batman, Mardin, Şırnak, Siirt

(Source: Law No. 5449)

As it can be understood from the aforementioned articles, the foundation of the current regional understanding is based on the adaptation and domestication of a situation that must be accepted in the EU harmonization process in a way that does not affect the existing system and traditional methods and even will be almost ineffective within itself. A structure that accepts the principle of independence from the state basically includes the principles of dependence on the state in the acceptance law is the simplest indicator to support this. It is a matter of debate that a region has definite boundaries and even it is binding to a law. As will be explained later, it is more suitable for the perception in the essence of the understanding of the region that regions have permeable borders that can differ according to the conditions that change with time, as in the understanding of the functional region.

Table 4.2 NUTS2 Regions in Law and Practice

STATEMENT*	ACTION**
• independent organization	• to be established, conducted, controlled and abolished by government actors
• reduce inter and intra-regional development disparities by developing cooperation between actors	• Turkey is separated into west and east • dominant regions; i.e., TR10 and TR41 regions and suppressed regions; i.e., TRC3 and TRB2 regions
• ensure the use of resources effectively and reviving local potential	• same output with different input • paying attention to local in theory, ignoring in practice
• consideration of social and economic dynamics	• region refers to NUTS2 regions formed by 'neighboring' provinces - distance-based approach

(Source: \*Listed by the author according to Law No. 5449

\*\*Listed by the author according to OECD 2016, Development Agencies General Audit Report-2018 (Court of Accounts, 2019), mentioned articles in 4.1 section and observations by author)

Table 4.2 shows what is stated in the law of NUTS2 regions/RDA and what is brought into practice. For these reasons, it is necessary to transform the current understanding of the region into an understanding that is based on resilience and development, progresses in parallel with social and economic factors, adopts a collaborative and participatory system and has consistency within itself.

## **4.2 NUTS2 Regions in Practice**

While determining NUTS regions, which is part of the EU transition process and forms the basis of region understanding in Turkey, consideration of social and economic factors is expected because targeting to create the basis in terms of socio-economic aspects. In this direction, Socio-Economic Development Ranking Research of Provinces and Regions (SEGE), which was first prepared in 1996, was updated and revised in 2003. Chapter 7 of the prepared SEGE-2003 research report is about the NUTS regions. However, due to the reasons to be clarified in the following sections, the socio-economic harmony and similarity, which is expected to fulfill the concept of the region and which should be taken into consideration in line with the goal of reducing the inter-regional and intra-regional development differences specified in Law No. 5449 and Presidential Decree No.4, are not observed clearly. In addition, results of SEGE studies prepared in 2011 and 2017 also show the mentioned target, socio-economic harmony and similarity, was not achieved.

For NUTS regions in Turkey, studies were initiated after being stated as incomplete in the progress report prepared by the EU in 2002. It became official with the Decision of the Council of Ministers numbered 4720 in the same year and its borders were determined. In the decision of the Council of Ministers, it was stated that the NUTS regions were created for "collecting and developing regional statistics, making socio-economic analysis of the regions, determining the framework of regional policies and creating a comparable statistical database in accordance with the European Union Regional Statistics System". Then, in 2003, the SPO updated the SEGE research, and the socio-economic development levels of the NUTS regions were determined. In other words, although in the 2nd article of the decision numbered 4720, it is stated "provinces are defined as 'Level-3' in the Statistical Region Units Classification; the neighboring provinces, which are economically, socially and geographically similar, have been classified as 'Level-1' and 'Level-2' by taking into account their regional development plans and population sizes.", it is

seen that socio-economic unity is not taken into consideration while determining the NUTS regions and socio-economic research is done after the regions are determined.

In addition, according to the 3rd article of the decision as mentioned earlier,

“There are 81 Statistical Regional Units within the scope of Level 3 and they are at the provincial level. Each province defines a Statistical Region Unit.

Level 2 Statistical Regional Units were defined as a result of grouping the neighboring provinces within the scope of Level 3, and there are 26 of them.

Level 1 Statistical Region Units are defined as a result of grouping Level 2 Statistical Region Units, and there are 12.”

Thus it can be said that NUTS2 of forming the region understanding in Turkey is determined by considering only administrative boundaries after identifying NUTS3 regions based on provinces. Socio-economic development levels were not taken into account, and zoning was made according to distance proximity. However, it is a matter of discussion that no social and economic criteria are taken into account when determining the boundaries of the region within a system set forth by Law No. 5449 and Presidential Decree No. 4, which aims to reduce intra-regional and inter-regional development differences.

The need for revising borders of NUTS2 regions in the light of experiences since 2006 is highlighted in The State Supervisory Council Report about Evaluation of Turkey’s Development Agencies Experience in 2014 and Development Agencies General Audit Report-2018 (Court of Accounts, 2019). In the audit report (2019), this issue is justified by eight reasons. These reasons are geographical wideness, socio-economic differences, resource use for development, the inclusion of some metropolitan cities in the multi-city regions, selection of region cores, local organization structure of other institutions, inconsistency with EU legislation and recent developments (Court of Accounts, 2019). Hence, even the administrative institutions are aware of the cognitive and practical deficiency of the NUTS system

in Turkey. However, Turkey is still embracing this formation as the region approach since 2006.

When we look at socio-economic development rankings in 2003, Table 4.3., there is a big difference between the rankings of provinces in many regions. One of the most distinctive intra-regional regions is the TR41-Bursa region (development agency is BEBKA). According to the development level ranking in this region, Bursa is ranked as 5th, Eskişehir 6th and Bilecik 18th. Another region where the difference within the region draws attention is the TR61-Antalya region (the development agency is BAKA). In this region, Antalya ranks 10th, while Isparta 28th and Burdur 31st. So, it can be seen a regional system based on distance proximity created the region approach of Turkey and there are inconsistencies between theory and practice within the approach. As can be understood, NUTS2 regions are determined regardless of intra-regional development and socio-economic similarity. In addition, this situation did not change over time and the differences within the region could not be reduced, although it was published in the law on development agencies and other declarations.

Looking at the TR41 and TR61 regions given as examples, according to the results of the SEGE survey for 2011, Table 4.3., while Bursa ranked 6th, Eskişehir 7th and Bilecik 27th; Antalya ranked 5th, Isparta 21st, and Burdur 26th. As clearly seen in the TR41 region, the intra-regional development difference has increased in 8 years. In the TR61 region, although the development levels of all provinces in the region have increased, intra-regional heterogeneity could not be resolved. In general, it can be seen that the NUTS2 zoning is not determined by considering socio-economic unity. When the 2011 ranking is examined, it is seen that there are no major changes with the 2003 rankings. Looking at the development level rankings of 2017, Table 4.3, for the same regions, while Bursa 6th, Eskişehir 7th and Bilecik ranked 19th; Antalya ranked 5th, Isparta 16th and Burdur 32nd. Accordingly, although the gap for the TR41 region is somewhat closed, it is not at a sufficient level. For the TR61 region, the difference between developments has increased again.

Table 4.3 Socio-Economic Development Ratings of NUTS2 Regions, SEGE, 2003, 2011 and 2017

Regions	Provinces	RANKINGS*			CHANGE**		
		2003	2011	2017	2003-2011	2011-2017	2003-2017
TR10	İSTANBUL	1	1	1	0	0	0
TR51	ANKARA	2	2	2	0	0	0
TR31	İZMİR	3	3	3	0	0	0
TR41	BURSA	5	6	6	1	0	1
	ESKİŞEHİR	6	7	7	1	0	1
	BİLECİK	18	27	19	9	-8	1
TR61	ANTALYA	10	5	5	-5	0	-5
	ISPARTA	28	21	16	-7	-5	-12
	BURDUR	31	26	32	-5	6	1
TR42	KOCAELİ	4	4	4	0	0	0
	BOLU	14	11	13	-3	2	-1
	YALOVA	9	13	12	4	-1	3
	SAKARYA	23	18	11	-5	-7	-12
	DUZCE	45	35	34	-10	-1	-11
TR32	MÜĞLA	13	8	8	-5	0	-5
	DENİZLİ	12	10	10	-2	0	-2
	AYDIN	22	19	15	-3	-4	-7
TR21	TEKIRDAG	7	9	9	2	0	2
	EDİRNE	16	12	21	-4	9	5
	KIRKLARELİ	11	15	18	4	3	7
TR62	ADANA	8	16	27	8	11	19
	MERSİN	17	24	25	7	1	8
TR22	CANAKKALE	24	14	20	-10	6	-4
	BALIKESİR	15	22	24	7	2	9
TR52	KONYA	26	20	14	-6	-6	-12
	KARAMAN	35	32	35	-3	3	0
TR33	MANİSA	25	23	23	-2	0	-2
	UŞAK	30	25	29	-5	4	-1
	KUTAHYA	40	38	37	-2	-1	-3
	AFYONKARAHİSAR	44	43	41	-1	-2	-3
TR81	KARABÜK	27	28	22	1	-6	-5
	ZONGULDAK	21	29	28	8	-1	7
	BARTIN	55	48	46	-7	-2	-9
TR72	KAYSERİ	19	17	17	-2	0	-2
	SİVAS	53	49	45	-4	-4	-8
	YOZGAT	64	65	63	1	-2	-1
TR83	SAMSUN	32	33	31	1	-2	-1
	AMASYA	39	37	38	-2	1	-1
	ÇORUM	46	50	50	4	0	4
	TOKAT	61	57	56	-4	-1	-5

Regions	Provinces	RANKINGS*			CHANGE**		
		2003	2011	2017	2003-2011	2011-2017	2003-2017
TRC1	GAZİANTEP	20	30	30	10	0	10
	KİLİS	54	63	62	9	-1	8
	ADIYAMAN	65	66	66	1	0	1
TR90	TRABZON	38	31	26	-7	-5	-12
	RİZE	37	34	36	-3	2	-1
	ARTVİN	43	44	49	1	5	6
	GİRESUN	50	52	53	2	1	3
	ORDU	62	61	60	-1	-1	-2
	GÜMÜŞHANE	71	62	64	-9	2	-7
TR71	NEVŞEHİR	34	36	40	2	4	6
	KİRŞEHİR	42	40	43	-2	3	1
	KIRIKKALE	33	41	33	8	-8	0
	AKSARAY	56	55	51	-1	-4	-5
	NIĞDE	49	56	57	7	1	8
TR82	KASTAMONU	51	47	48	-4	1	-3
	SİNOP	57	51	52	-6	1	-5
	CANKIRI	59	54	55	-5	1	-4
TRB1	ELAZİĞ	36	39	42	3	3	6
	MALATYA	41	42	44	1	2	3
	TUNCELİ	52	58	59	6	1	7
	BİNGÖL	76	72	71	-4	-1	-5
TR63	HATAY	29	46	39	17	-7	10
	OSMANİYE	47	53	54	6	1	7
	K.MARAŞ	48	60	58	12	-2	10
TRA1	ERZİNCAN	58	45	57	-13	12	-1
	ERZURUM	60	59	61	-1	2	1
	BAYBURT	66	64	65	-2	1	-1
TRC2	DIYARBAKIR	63	67	68	4	1	5
	SANLIURFA	68	73	73	5	0	5
TRC3	BATMAN	70	70	72	0	2	2
	MARDİN	72	74	74	2	0	2
	ŞİIRT	73	77	75	4	-2	2
	ŞIRNAK	78	78	81	0	3	3
TRA2	KARS	67	68	69	1	1	2
	İĞDIR	69	69	70	0	1	1
	ARDAHAN	74	71	67	-3	-4	-7
	AĞRI	80	79	80	-1	1	0
TRB2	VAN	75	75	77	0	2	2
	BITLİS	79	76	76	-3	0	-3
	HAKKARİ	77	80	78	3	-2	1
	MUŞ	81	81	79	0	-2	-2

(Source: \*SEGE Researches, 2003, 2011, 2017; \*\*Calculated by the author according to SEGE 2003, 2011, 2017 Researches)

This situation can be seen not only in intra-regional development levels but also in inter-regional development levels. When the development indexes of the TRB2-Van region and TRA2-Ağrı region among the NUTS2 regions are examined, can be seen in Table 4.4, the indices belonging to the provinces of the TRB2 region in 2003 are Van -1.09, Hakkari -1.14, Bitlis -1.16, Muş -1.44 and in TRA2 region the indices of provinces are Kars -0.82, Iğdır -0.89, Ardahan -1.07, Ağrı -1.28. While in 2011, Van -1.38, Hakkari -1.70, Bitlis -1.40, Muş -1.73 and Kars -1.09, Iğdır -1.11, Ardahan -1.14, Ağrı -1.64; in 2017, Van -1.45, Hakkari -1.52, Bitlis -1.43, Muş -1.70 and Kars -1.12, Iğdır -1.18, Ardahan -0.98, Ağrı -1.75. Accordingly, it can be said that the development indexes of all provinces within these two regions have been in a constant decline within 14 years (except Ardahan in 2011-2017, but this does not change the fact that the development index of the region generally decreased).

Table 4.4 Socio-Economic Development Indexes and Rankings of TRA2, TRB2, TR32 and TR33 Regions, SEGE

NUTS2	Provinces	Development Index			Development Ranking		
		2003	2011	2017	2003	2011	2017
TRA2	Ardahan	-1.07	-1.14	-0.98	74	71	67
	Kars	-0.82	-1.09	-1.12	67	68	69
	Iğdır	-0.89	-1.11	-1.18	69	69	70
	Ağrı	-1.28	-1.64	-1.75	80	79	80
TRB2	Bitlis	-1.16	-1.40	-1.43	79	76	76
	Van	-1.09	-1.38	-1.45	75	75	77
	Hakkari	-1.14	-1.70	-1.52	77	80	78
	Muş	-1.44	-1.73	-1.70	81	81	79
TR32	Muğla	0.71	1.05	1.17	13	8	8
	Denizli	0.72	0.91	0.92	12	10	10
	Aydın	0.42	0.56	0.60	22	19	15
TR33	Manisa	0.34	0.47	0.49	25	23	23
	Uşak	0.17	0.37	0.28	30	25	29
	Kütahya	-0.21	0.02	0.17	40	38	37
	Afyonkarahisar	-0.27	-0.08	-0.02	44	43	41

(Source: SEGE Researches, 2003, 2011, 2017)

However, for instance, when we look at TR32-Aydın and TR33-Manisa regions in Table 4.4, which have the similar number of provinces, the indexes of 2003 are in the TR32 region; Aydın 0.42, Denizli 0.72, Mugla 0.71; and in the TR33 region, Manisa 0.34, Afyon -0.27, Kütahya -0.21, Uşak 0.17. In 2011 indexes are, Aydın 0.56, Denizli 0.91, Mugla 1.05 and Manisa 0.47, Afyon -0.08, Kütahya 0.02, Uşak 0.37; while in 2017, Aydın 0.60, Denizli 0.92, Mugla 1.17 and Manisa 0.49, Afyon -0.02, Kütahya 0.17, Uşak 0.28. As can be seen here, development indexes of all provinces in these two regions increase through the years according to the results of three studies. This situation can be interpreted as the inter-regional development differences not being resolved within the NUTS2 regions.

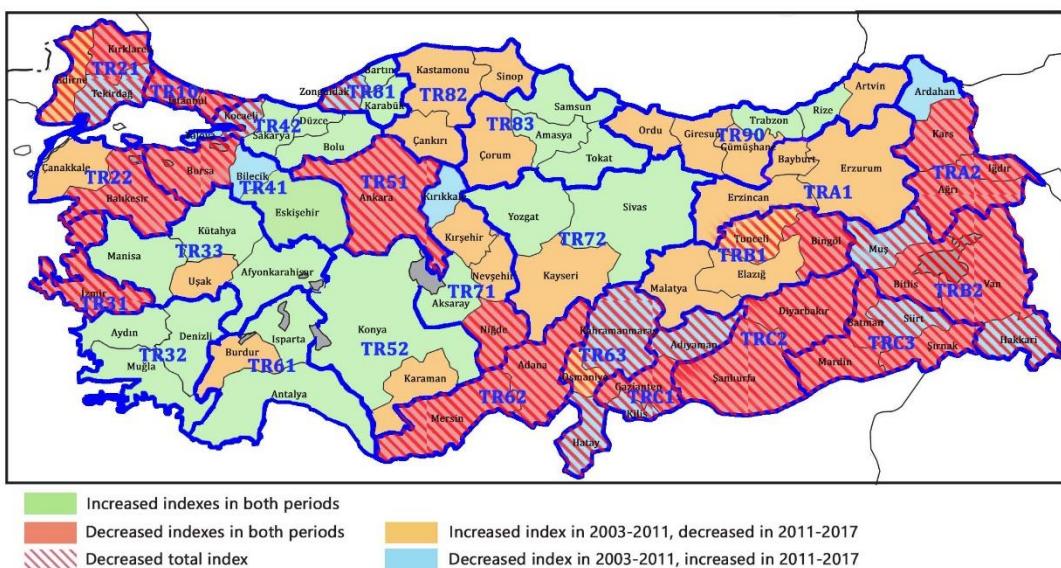


Figure 4.2. Index Changes of Provinces

(Source: Mapped by the author according to SEGE 2003, 2011, 2017 Researches)

Index changes of all provinces can be seen in Figure 4.2. As seen in the figure, there is no province in the east, except Trabzon and Rize, and southeast that have a constant increase between the years of 2003 and 2017. Furthermore, almost all the provinces in the southeast have a constant decrease between these years. The ones with a decrease in the west are mostly the provinces that have the top or quite high indexes throughout the period. Indeed, this decrease did not affect those provinces as much as it affected the east.

The incompatibility of NUTS2 regions with socio-economic proximity is also seen on the map of provinces divided into six tiers according to their development order, as seen in Figure 4.3. There are intra-regional disparities that have not been solved in time. For instance, TR41, TR42, TR72, TR81 and TRC1 are some of the most obvious ones. This situation is the same in 2003, 2011 and 2017. There is no improvement for reducing disparities although it is one of the most important aims of the current region approach. The development levels of the provinces within the borders of the NUTS2 region are far from a homogeneous structure.

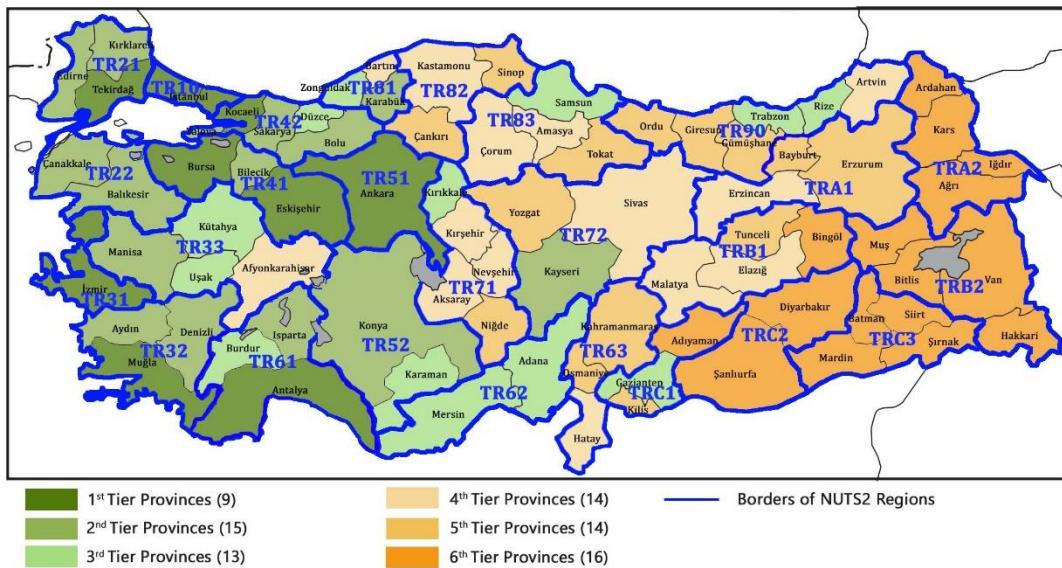


Figure 4.3. Development Levels of Provinces

(Source: Remapped by the author according to SEGE Research, 2017)

Moreover, in the 6-stage provinces ranking determined within the scope of three SEGE studies, which can be seen in Figure 4.3, especially Istanbul and the surrounding provinces and the provinces in the west were defined as 1st and 2nd degree, while the 5th and 6th degree developed provinces are located in the southeast and east. This situation is the same in all three studies and it can be said the fact that the balance in the regions has not changed significantly over time indicates that successful policy implementation towards reducing the development difference between the regions cannot be made.

As can be seen from these examples, there is not only inconsistency in the formation of the NUTS2 regions, but also the goals specified in the manifesto have not been achieved. This may be interpreted as pillars of regional understanding of Turkey do not stand firm bases. It would be wrong to expect an understanding of a region with unstable foundations to be socially and economically durable and developing. This is why the regional perception of Turkey is necessary to turn to an understanding favorable for development and consistent basis.

Behind the establishment of EU NUTS regions, apart from the reasons such as the creation of data infrastructure for the regions, the ability to categorize the statistical data of the regions, to carry out systematic research and policy, another important one is the realization of the controlled distribution of investment funds. This situation can be evaluated in parallel with the effective use of investments and incentives. Based on this, it can be expected that the investment supports will be at a close level in all provinces covered by a certain region and the inter-regional support level will be balanced. However, according to the Regions in Investment Incentive Implementation Map (2020), created in the light of the 2011 SEGE research, it can be deduced that this balanced and controlled fund distribution has not been realized. The map is entered into force with the Decision of the Council of Ministers numbered 2012/3305 and the latest version is formed regarding Presidential Decision No. 4191, 2021. The Investment Incentive Map, seen in Figure 4.4, is basically a map created for government investments. However, it can be said that the investments of the EU are used in parallel to the map because the state distributes EU funds in Turkey.

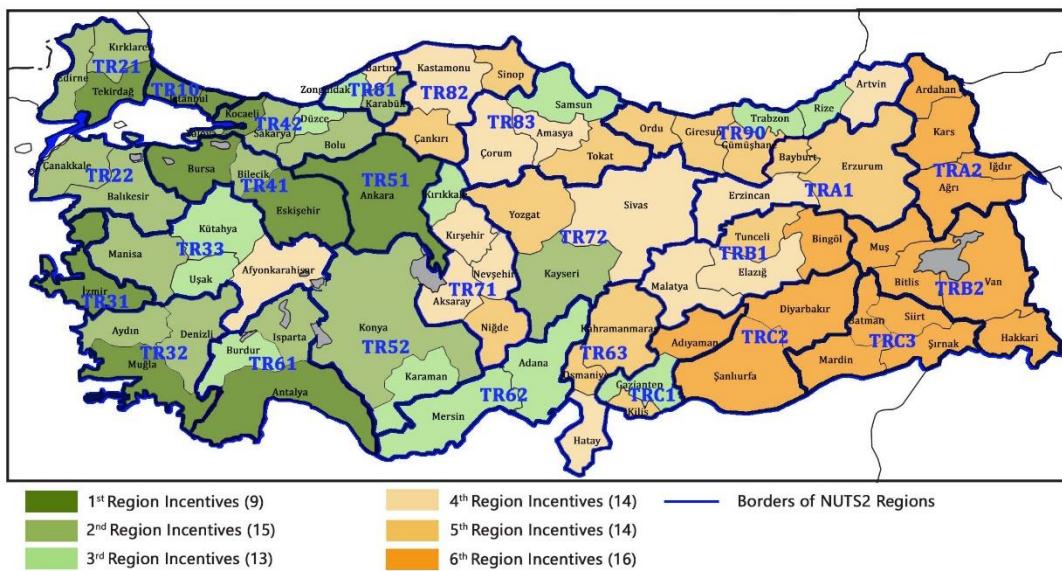


Figure 4.4. Regions in Investment Incentive Implementation

(Source: Mapped by the author according to Presidential Decision No. 4191, 2021)

In addition, it is an important point how the state incentives will direct the NUTS regions that constitute the region understanding in Turkey. For example, Antalya in the 1<sup>st</sup> Region Incentives benefits from 1-4 million, Isparta 1-3 million budget incentives, while Burdur in the same NUTS2 region can benefit from incentives with a budget of 500,000-2 million (Presidential Decision No. 4191, 2021). It is valid when the difference between the development rankings between Antalya and Isparta is 16 and between Isparta and Burdur is 5. Therefore, balanced fund distribution within the region cannot be provided for every region. Also, looking at the map, it can be seen that NUTS2 regions, which include provinces in the southeast of the country, have a low rate of benefiting from these incentives. For this reason, socio-economic transformations are not supported by leaving the regions that have not yet developed socially and economically in the background. On the other hand, incentives are maintained in the dominant regions. The strong get stronger and the weak stand in place. In this case, the development differences between the regions cannot be expected to be reduced. In addition, the NUTS regions created as part of the EU process cannot provide the expected in terms of fund distributions.

Figure 4.5 and Figure 4.6 can be given as a summary of the socio-economic levels of regions. Figure 4.5 shows ranking changes of provinces obtained by SEGE researches and Figure 4.6 presents ranking changes of NUTS2 regions.

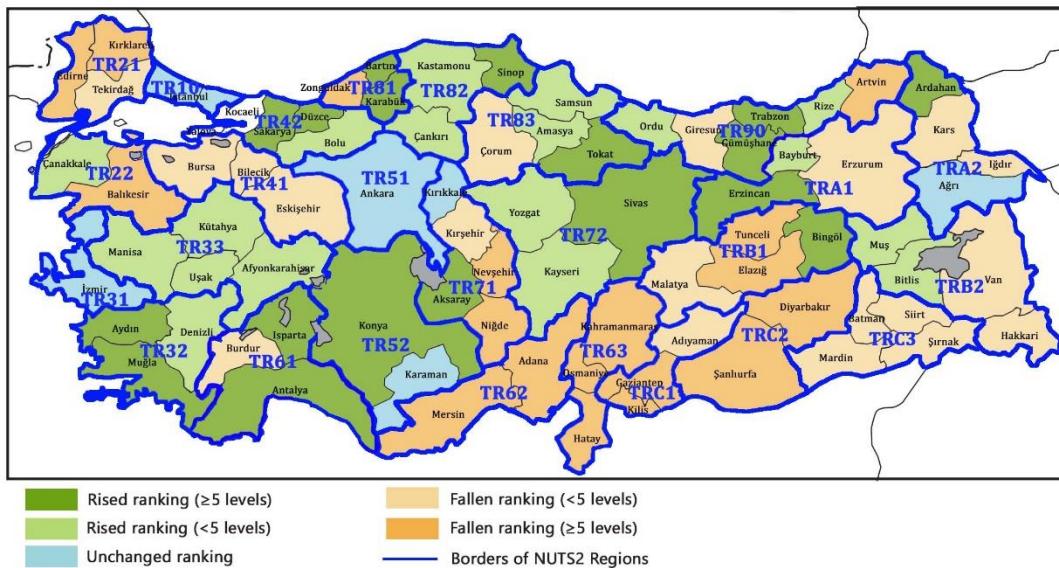


Figure 4.5. Socio-Economic Development Ranking Changes of Provinces between the years of 2003 and 2017

(Source: Mapped by the author according to SEGE Researches)

Based on Figure 4.5, provinces in the southeast have a falling ranking level and even most of them decreased more than five levels. On the other side, three of seven provinces with unchanged ranking are the ones that have the top rankings. Also, even decreased rankings of provinces in the west are higher than the increased rankings of provinces in the east. For instance, Balıkesir was 15th in 2003 and 24th in 2017 when Bingöl was 76th in 2003 and 71st in 2017. Hence, the effects of decreased conditions are not the same in the west and east. As a result, inter-regional disparities, heterogeneous structure and the difference between west and east are quite obvious. Especially, the conditions for the provinces with a decreased level of rankings or indexes are considerably compelling.

Besides the province level, it can be seen in Table 4.5 and Figure 4.6 that inter-regional disparity is a true challenge for Turkey at the NUTS2 level, which is an

important aim of the current approach. The table shows that rankings are low in the eastern regions while all the top-ranking levels are in the west. Hence, it can be considered; Turkey is separated into west and east according to development levels. East fall even further behind of west.

Table 4.5 Socio-Economic Development Ranking Changes of NUTS2 Regions

NUTS2 REGIONS		RANKINGS*			CHANGE**		
		2003	2011	2017	2003-2011	2011-2017	2003-2017
TR10	İstanbul	1	1	1	0	0	0
TR21	Tekirdağ, Edirne, Kırklareli	6	8	8	2	0	2
TR22	Balıkesir, Çanakkale	10	10	10	0	0	0
TR31	İzmir	3	3	3	0	0	0
TR32	Aydın, Denizli, Muğla	8	7	7	-1	0	-1
TR33	Manisa, Afyonkarahisar, Kütahya, Uşak	12	12	13	0	1	1
TR41	Bursa, Eskişehir, Bilecik	4	4	5	0	1	1
TR42	Kocaeli, Sakarya, Düzce, Bolu, Yalova	5	6	6	1	0	1
TR51	Ankara	2	2	2	0	0	0
TR52	Konya, Karaman	13	11	9	-2	-2	-4
TR61	Antalya, Isparta, Burdur	9	5	4	-4	-1	-5
TR62	Adana, Mersin	7	9	11	2	2	4
TR63	Hatay, Kahramanmaraş, Osmaniye	15	21	19	6	-2	4
TR71	Kırıkkale, Aksaray, Niğde, Nevşehir, Kırşehir	17	18	18	1	0	1
TR72	Kayseri, Sivas, Yozgat	16	14	14	-2	0	-2
TR81	Zonguldak, Karabük, Bartın	11	13	12	2	-1	1
TR82	Kastamonu, Çankırı, Sinop	21	19	21	-2	2	0
TR83	Samsun, Tokat, Çorum, Amasya	18	15	15	-3	0	-3
TR90	Trabzon, Ordu, Giresun, Rize, Artvin, Gümüşhane	19	17	17	-2	0	-2
TRA1	Erzurum, Erzincan, Bayburt	22	22	22	0	0	0
TRA2	Ağrı, Kars, İğdır, Ardahan	25	25	24	0	-1	-1
TRB1	Malatya, Elazığ, Bingöl, Tunceli	20	20	20	0	0	0
TRB2	Van, Muş, Bitlis, Hakkari	26	26	26	0	0	0
TRC1	Gaziantep, Adıyaman, Kilis	14	16	16	2	0	2
TRC2	Şanlıurfa, Diyarbakır	23	23	23	0	0	0
TRC3	Mardin, Batman, Şırnak, Siirt	24	24	25	0	1	1

(Source: \*SEGE Researches, 2003, 2011, 2017

\*\*Calculated by the author according to SEGE 2003, 2011, 2017 Researches)

(Blue rows show unchanged and orange ones show fallen total rankings)

Looking at Figure 4.6, it can be sad that fallen and unchanged rankings are in the southeast and northwest. However, if it is considered together with Table 4.5, it is deduced that the rankings of the regions in the east are already low. Thus, unchanged or even decreased rankings of these regions show there is no progress about the less inter-regional disparity. İstanbul (TR10), İzmir (TR31) or Ankara (TR51) regions also have an unchanged ranking but it does not have the same meaning as the Van (TRB2), Şanlıurfa (TRC2) or Erzurum (TRA1) regions. TR10, TR31 and TR51 have the top three rankings when rankings of TRB2, TRC2 and TRA1 are among the lowest five. Also, the TR41 region has a decreased ranking between the years of 2003 and 2017 (from 4th to 5th) but as said before; it is not the same with the decreased ranking of TR63 (from 15th to 19th) or TRC3 (from 24th to 25th). Therefore, these are evidence of inter-regional disparity, which is not solved throughout the process.

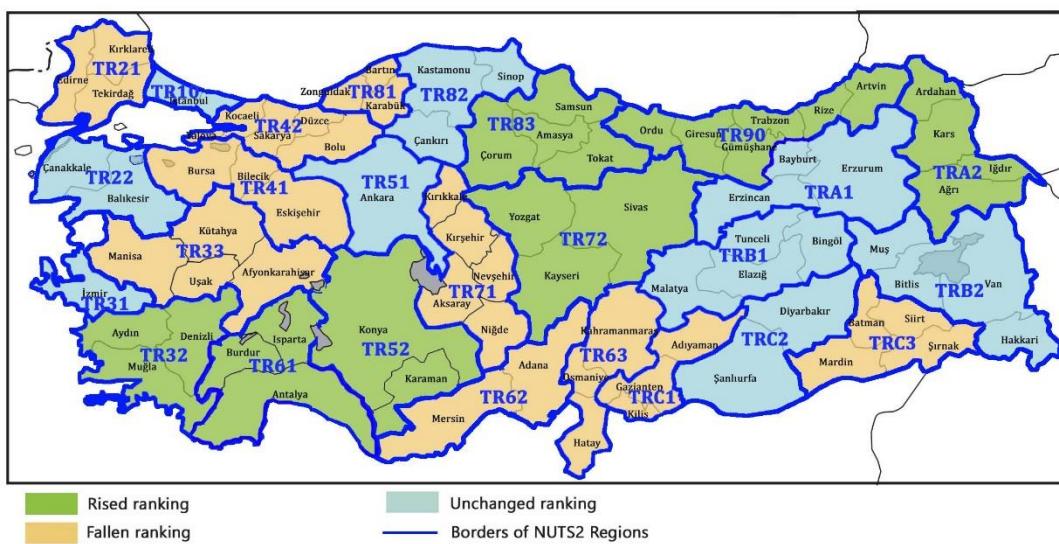


Figure 4.6. Socio-Economic Development Ranking Changes of NUTS2 Regions between the years of 2003 and 2017

(Source: Mapped by the author according to SEGE Researches)

NUTS2 regions form the basis of region perception in Turkey seems to be a concept only based on border neighborhood in both theory and practice. EUROSTAT determines these regions by doing statistical data research for only its members. In

Turkey, which is among the candidate countries, there are inconsistencies within designated regions because they are not generally built on solid foundations and seem compelled to change the current understanding fundamentally.

Based on this, an understanding of functional regions should be brought about by taking out of the "neighboring provinces region" understanding, which cannot provide homogeneous investment and fund distribution within the region. A homogeneous spatial part can be formed within this understanding, which can have a separate structure from the government and administrative units. A functional region structure that includes structures that will work together and support each other should be created. As an understanding that has these principles, these regions provide a functional partnership within the region. Still, they may not have conclusive boundaries which are separated from other regions by transition zones. These regions are divided not according to provincial administrative boundaries but according to functional unity and characteristics of creating transition zones. In this way, the regions whose socio-economic development lags behind can converge to the developed regions and homogeneous resource distribution can be achieved by eliminating the intra-regional development difference as the main purpose.

### **4.3 Success Level of the Current Approach**

The current approach lies on functional region principles in theory but as mentioned in previous chapters, it is quite far from being functional in practice. Economically, whether aims could be achieved or not can be understood by examining six different aspects mentioned in chapter 2.5, which are accessible data in Turkey. These are employment and unemployment rates, population, net migration, migration velocity and gross national product per capita. Table 4.6 shows the changes in these six parameters of NUTS2 regions in time. Available years of the parameters differ but it does not affect the main point; aims of NUTS2 regions could be achieved in time or not.

Table 4.6 Changes in NUTS2 Regions from The Point of Six Parameters

NUTS2 REGIONS	PROVINCES	Population (person)		Employment rate (15+) (%)		Unemployment rate (15+) (%)		net migration (person)		Migration velocity (%)		gross national product per capita (TL)	
		2007	2020	2004	2020	2004	2020	2008	2020	2008	2020	2004	2020
TR10	İstanbul	12573836	15462452	39.6	44.8	12.4	14.7	26675	-53022	2.1	-3.42	14795	97950
TR21	Tekirdağ, Edirne, Kırklareli	1458114	1850565	50.8	50.9	6.6	9	21652	22540	14.52	12.25	10843	73708
TR22	Balıkesir, Çanakkale	1594441	1781833	44.2	44.0	6.5	7.8	8422	11187	5.26	6.30	7916	57446
TR31	İzmir	3739353	4394694	38.5	42.9	15.7	17.1	27248	14772	7.2	3.37	10358	70010
TR32	Aydın, Denizli, Muğla	2620452	3160772	51.1	46.2	7.7	9.6	20347	19003	7.64	6.03	8477	51099
TR33	Manisa, Afyonkarahisar, Kütahya, Uşak	2939517	3133649	44.2	46.4	7.6	8.3	-12903	1162	-4.42	0.37	6656	52374
TR41	Bursa, Eskişehir, Bilecik	3368502	4209378	46.4	44.5	9.3	9.6	44768	22800	13.09	5.43	10205	66067
TR42	Kocaeli, Sakarya, Düzce, Bolu, Yalova	3048651	4026438	36.0	44.4	12.7	12.2	37393	33028	11.99	8.24	11052	77750
TR51	Ankara	4466756	5663322	37.1	42.8	15.3	14.8	30562	11997	6.74	2.12	12579	85396
TR52	Konya, Karaman	2185131	2504939	38.3	44.7	8.9	8	-10499	-5222	-4.76	-2.08	6329	49872
TR61	Antalya, Isparta, Burdur	2460321	3255704	47.9	47.0	7.0	12.2	37077	13463	14.86	4.14	10092	50427
TR62	Adana, Mersin	3602588	4127475	36.5	40.6	14.9	13.4	-16157	14339	-4.44	3.48	6603	47739
TR63	Hatay, Kahramanmaraş, Osmaniye	2843518	3376039	33.8	37.5	17.4	15.2	-1471	10035	-0.51	2.98	5248	38005
TR71	Kırıkkale, Aksaray, Niğde, Nevşehir, Kırşehir	1481248	1611789	39.8	41.9	10.2	12	-9377	-7290	-6.26	-4.51	5743	43380
TR72	Kayseri, Sivas, Yozgat	2295679	2476439	34.1	39.2	9.9	12.8	-24922	-7157	-10.78	-2.89	6489	47294
TR81	Zonguldak, Karabük, Bartın	1016484	1033797	40.9	42.8	12.2	9.3	96	-8808	0.09	-8.48	5496	43918
TR82	Kastamonu, Çankırı, Sinop	732790	785265	34.1	47.2	10.7	6.6	2667	-4588	3.62	-5.83	6533	46441
TR83	Samsun, Tokat, Çorum, Amasya	2728183	2819560	51.7	45.9	6.2	8.3	-22292	-7779	-8.16	-2.76	5427	38928
TR90	Trabzon, Ordu, Giresun, Rize, Artvin, Gümüşhane	2488652	2677584	61.3	48.0	6.9	8.8	-5622	-8522	-2.24	-3.18	5593	41369
TRA1	Erzurum, Erzincan, Bayburt	1075088	1074620	55.9	42.5	3.6	10.1	-27538	-12912	-25.62	-11.94	5075	41958
TRA2	Ağrı, Kars, İğdır, Ardahan	1137671	1117833	43.4	39.1	1.8	11.4	-30730	-15413	-26.58	-13.69	3327	29697
TRB1	Malatya, Elazığ, Bingöl, Tunceli	1598897	1759327	35.9	41.7	19.2	10.6	-6271	-6424	-3.85	-3.64	4781	39033
TRB2	Van, Muş, Bitlis, Hakkari	1959535	2191967	36.1	36.4	10.6	23.6	-33342	-19688	-16.58	-8.94	3061	25951
TRC1	Gaziantep, Adıyaman, Kilis	2261242	2876408	35.3	41.6	15.1	13	-7474	-1309	-3.22	-0.45	5084	42423
TRC2	Şanlıurfa, Diyarbakır	2983813	3898687	32.6	30.7	11.8	20.1	-27872	-13365	-9.05	-3.42	4084	23459
TRC3	Mardin, Batman, Şırnak, Siirt	1925794	2343826	36.5	26.0	6.1	33.5	-20437	-2827	-10.34	-1.21	3640	31934

(Source: TURKSTAT, 2004, 2007, 2008, 2020)

An increase in the employment rate shows that the economy of the region is improving and the region attracts a labor force. Likewise, a decrease in unemployment is evidence of developed economic conditions and ensuring regional development is one of the aims that covers economic development. An increase in population can be considered as attracting people for both economic and social reasons. The process of being a functional region basically begins with an increase in population. Net migration and migration velocity show that people mostly come to the region for job opportunities or social activities. If migration velocity is negative, this means that the region loses more people than it gets and it may be mostly due to lack of prosperity. Finally, gross national product per capita shows the welfare level of the region.

As the first parameter, changes in population present that there is no dramatic change in regions which can be seen in Figure 4.7. Still, the İstanbul region (TR10) is dominant. There are remarkable changes in TR41, TR42, TR51, TR61 and TRC2 regions apart from the TR10 region. Thus, it can be considered these regions have more potential to be developed economically and socially.

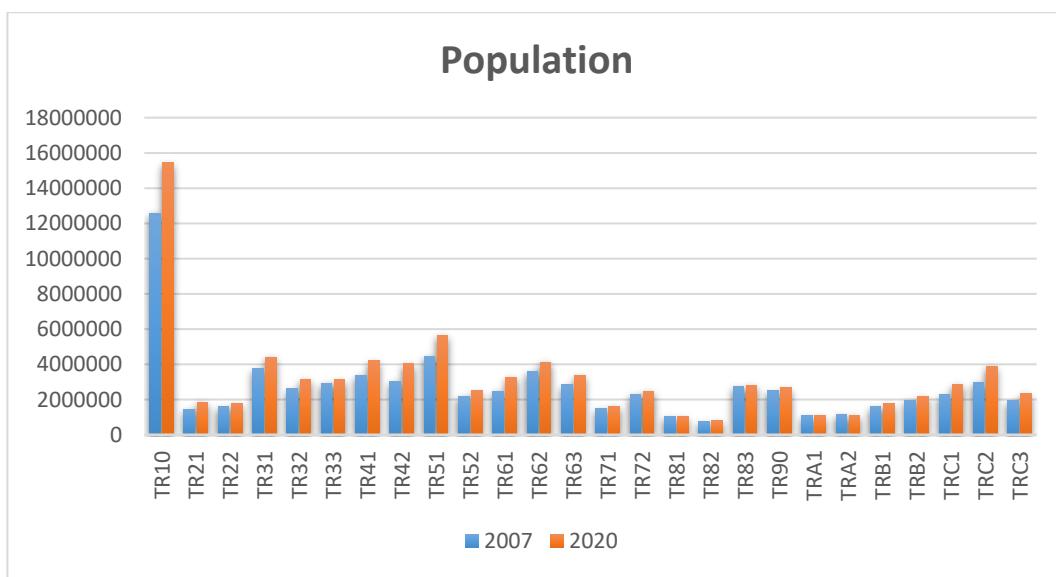


Figure 4.7. Population Changes in NUTS2 Regions

(Source: TURKSTAT Address Based Population Registration System Results, 2007, 2020)

However, population input should be combined with migration in order to put a finer point on it. Figure 4.8 shows the change in net migration of regions in parallel to Table 4.5. According to the figure, the İstanbul region has the most critical change. It loses more people than it gets, although its population is increasing. This can be interpreted as İstanbul cannot attract people economically or socially. However, it may not be completely true for İstanbul but it may be because of its accepted boundaries as the region. Its process is not the same with other cities/regions of Turkey. İstanbul reached its population limits and its land rents or daily life costs are high. Therefore, it began to be a working place for its surrounding area. People do not choose İstanbul to live but choose to work. Hence, close cities are preferred to reside, which can be deduced from population increase in TR21, TR41 and TR42. As a result of this, it can be said the boundaries of the İstanbul region are not parallel to its development process. So, its evaluation cannot be carried out properly without a convenient boundary approach.

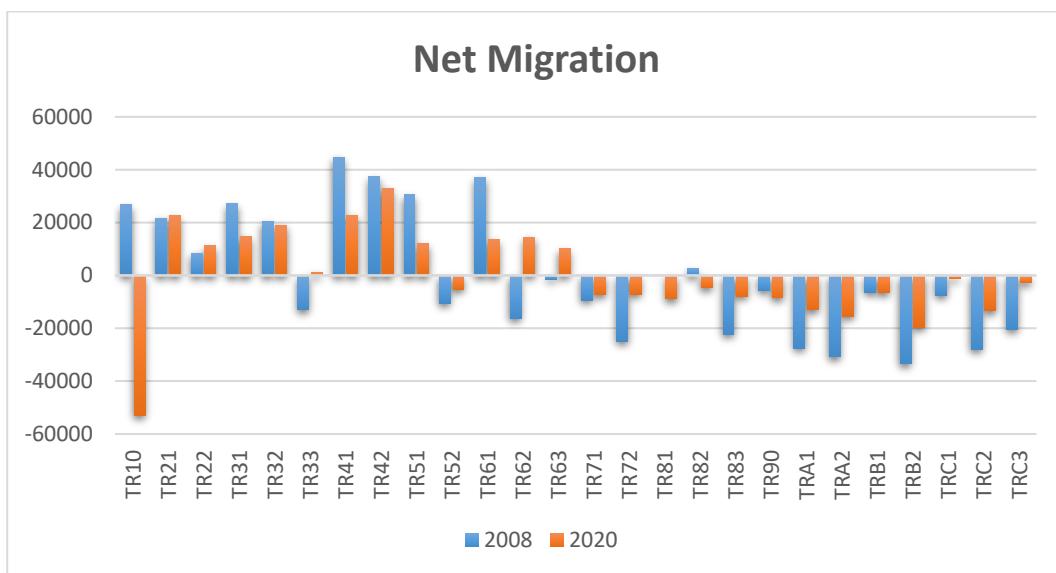


Figure 4.8. Net Migration Changes in NUTS2 Regions

(Source: TURKSTAT Address Based Population Registration System Results, 2008, 2020)

The region with the highest migration in 2008 is TR41 and in 2020 is TR42. Apart from İstanbul, the region with the lowest migration is TRB2 both in 2008 and 2020. TRB2 can be accepted as falling even further behind to attract people economically and socially. The combination of net migration and population results shows that close regions to İstanbul get population and migration while mostly regions in the east of the country lose population and migration in both years. Thus, it may be deduced the aim of reducing inter-regional disparities is not achieved in terms of these parameters.

Another parameter is migration velocity which is shown in Figure 4.9. Migration velocity should be in balance in the regions where inter-regional development disparities are low. As can be seen in the figure, it can be considered that intra-regional disparities for migration parameters are reduced. However, if the country is divided into east and west, it is almost completely true that the regions in the west attract people while the east chase away. In other words, there is not enough reason to move to the regions in the east. This is another evidence not to be able to reduce inter-regional disparities.

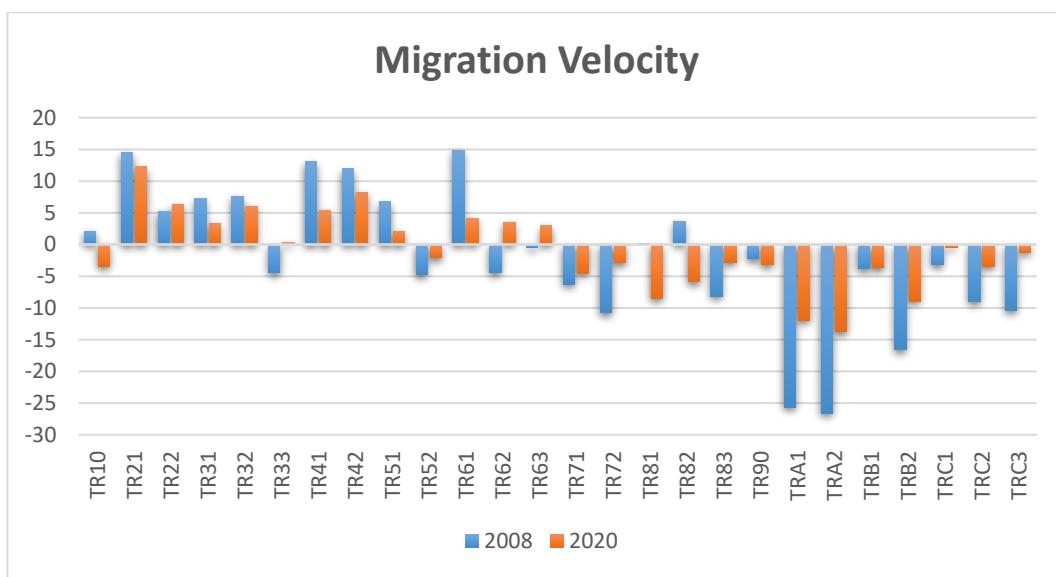


Figure 4.9. Migration Velocity Changes in NUTS2 Regions

(Source: TURKSTAT Address Based Population Registration System Results, 2008, 2020)

Changes in employment and unemployment rate are strong indicators to examine the development of a region. Figure 4.10 shows the employment rate and Figure 4.11 shows the unemployment rate over the age of 15 changes in NUTS2 regions.

TR32, TR83, TR90, TRA1, TRA2 and TRC3 regions are the ones where the employment rate decreased through the years between 2004 and 2020. Moreover, TR61, TRA1, TRA2, TRB2, TRC2 and TRC3 are the ones where the unemployment rate dramatically increased through those years. Thus, it can be said for these regions that their economic conditions are not developing and it is possible these regions worsen economically. There are insufficient job opportunities and people could not find a job suitable for them. This means falling behind in terms of regional development.

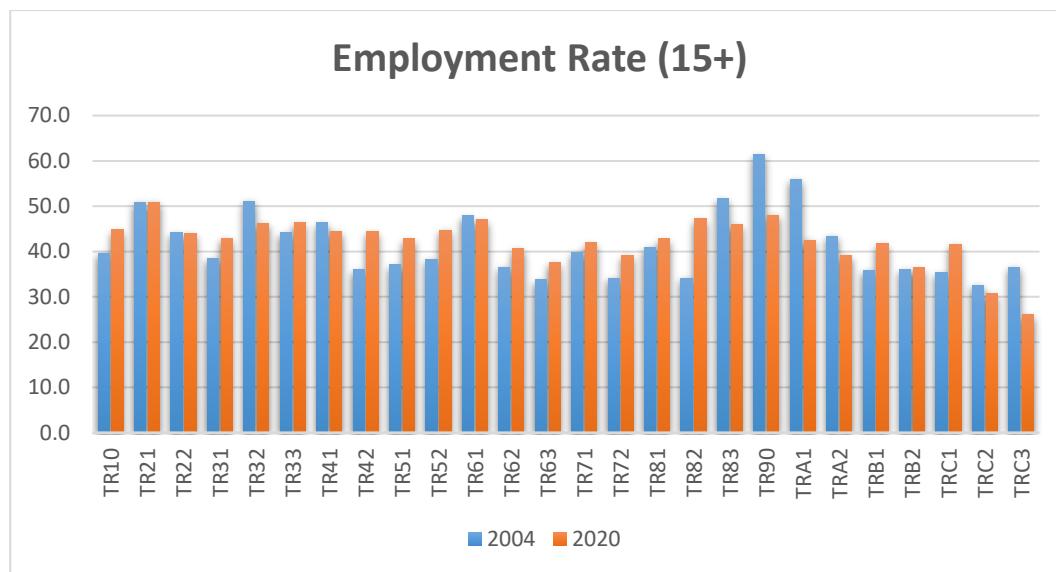


Figure 4.10. Employment Rate Changes in NUTS2 Regions

(Source: TURKSTAT, Labor Statistics 2004; Regional Results of Labor Statistics, 2020)

Not only a decrease in the employment rate of TR90 and TRA1 but also an increase in the unemployment rate of TRB2 and TRC3 is so critical. The gaps between the rates are quite drastic. Therefore, it can be interpreted as these regions cannot compete with others and they are overwhelmed by them. Furthermore, it can be

considered investments and incentives which create job opportunities and support economic development are not enough for those regions and this shows the distribution of funds which is one of the important aims that cannot be made balanced.

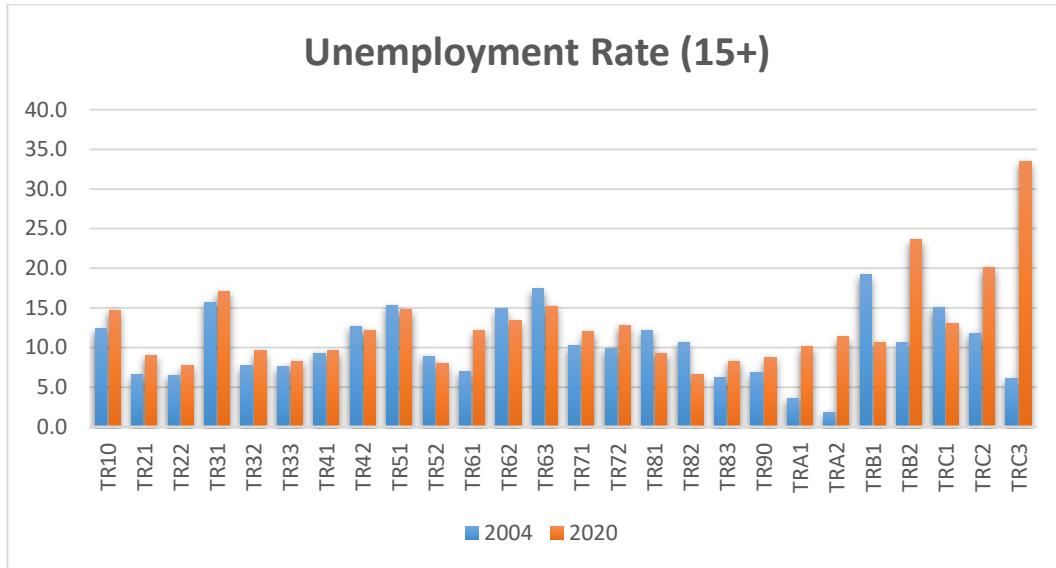


Figure 4.11. Unemployment Rate Changes in NUTS2 Regions

(Source: TURKSTAT, Labor Statistics 2004; Regional Results of Labor Statistics, 2020)

Another parameter to evaluate the current approach, maybe the most important one for economic interpretations, is gross national product per capita in regions which is shown in Figure 4.12. As seen in the figure, gross national product per capita in 2020 is higher than in 2004 in all regions because of changes in the value of money. However, in 2020, the gap between the values diverged even though it was almost in balance in 2004. The lowest value (TRC2) is about 22% of the highest one (TR10). The fluctuation in 2020 is more obvious compared to 2004. Inter-regional disparities are the reason for this fluctuation.

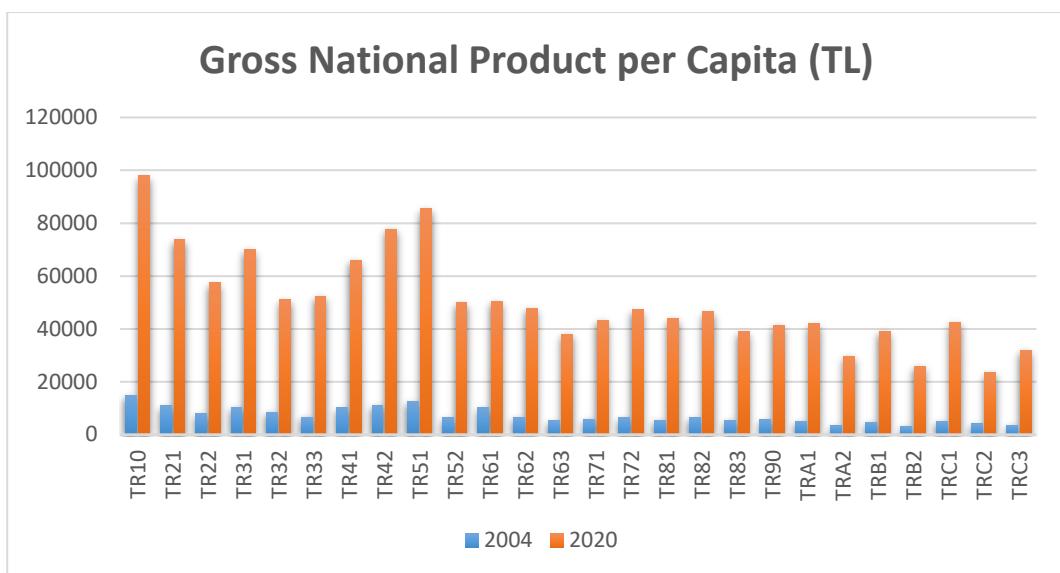


Figure 4.12. Gross National Product per Capita Changes in NUTS2 Regions (TL, at current prices)

(Source: TURKSTAT, Regional Calculations, 2004, 2020)

In the light of those six parameters, developed and underdeveloped regions are investigated, which is shown in Table 4.6. While creating the table, regions are scored by ‘1’ for positive changes or ‘0’ for negative changes according to whether they improved their parameter or not. For instance, the regions are scored by ‘1’ if their net migration increased or by ‘0’ if their unemployment level increased in time. Scores for gross national product per capita are calculated differently because the value of money changed. In order to score the regions for this parameter, the average gross national product per capita in both years is calculated and the change between the average values is found. Then, regions are scored by ‘1’ if their changes between the years are above the average value change; if it is below the average value, they scored by ‘0’. Finally, their total score is calculated and they are accepted as underdeveloped in time if the total score is between 0-2, as developed if the total score is between 4-6. If the total score is 3, they are not accepted as developed or underdeveloped; they are accepted as making no progress.

Table 4.7 Overall Evaluation of Six Parameters in NUTS2 Regions

NUTS2 REGIONS	population	employment rate (15+)	unemployment rate (15+)	net migration	migration velocity	gross national product per capita (TL)	Total
TR10	1	1	0	0	0	1	3
TR21	1	1	0	1	0	1	4
TR22	1	0	0	1	1	1	4
TR31	1	1	0	0	0	1	3
TR32	1	0	0	0	0	0	1
TR33	1	1	0	1	1	1	5
TR41	1	0	0	0	0	1	2
TR42	1	1	1	0	0	1	4
TR51	1	1	1	0	0	1	4
TR52	1	1	1	1	1	1	6
TR61	1	0	0	0	0	0	1
TR62	1	1	1	1	1	0	5
TR63	1	1	1	1	1	0	5
TR71	1	1	0	1	1	0	4
TR72	1	1	0	1	1	0	4
TR81	1	1	1	0	0	0	3
TR82	1	1	1	0	0	0	3
TR83	1	0	0	1	1	0	3
TR90	1	0	0	0	0	0	1
TRA1	0	0	0	1	1	0	2
TRA2	0	0	0	1	1	0	2
TRB1	1	1	1	0	1	0	4
TRB2	1	1	0	1	1	0	4
TRC1	1	1	1	1	1	0	5
TRC2	1	0	0	1	1	0	3
TRC3	1	0	0	1	1	0	3

(Source: Calculated by the author according to Table 4.5)

(Blue rows show total score 3, orange rows show total score under 3)

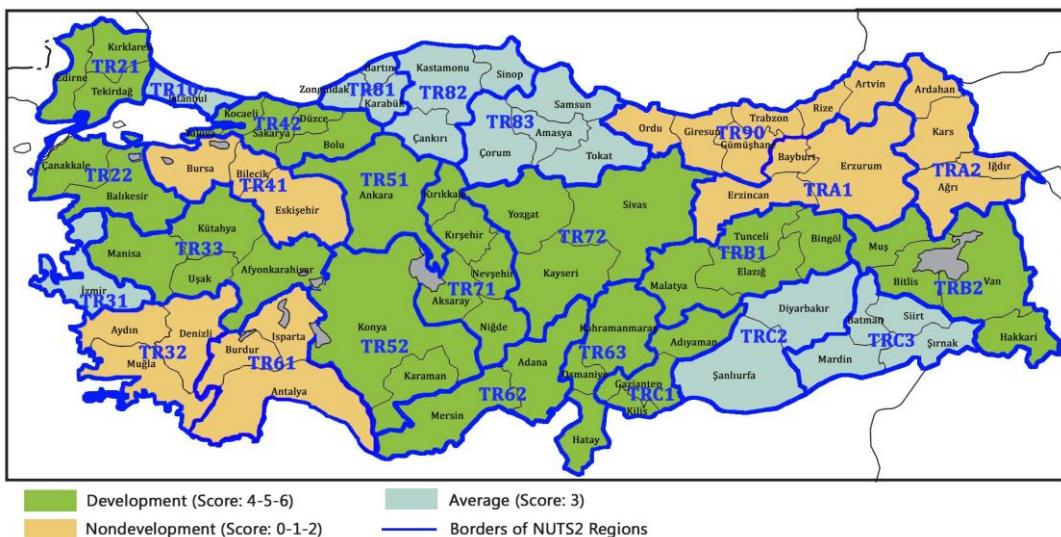


Figure 4.13. Development Changes of NUTS2 Regions

(Source: Mapped by the author according to Table 4.7)

There are six regions with scores between 0-2, 7 regions with a score of 3 and 13 regions with scores between 4-6. According to the results as also seen in Figure 4.13, half of the regions did not progress and 23% of the regions could not be able to progress even at the level of average. Only 50% of the regions made a positive difference in socio-economic development regarding these six parameters. Reducing intra- and inter-regional differences and, in parallel to that, increasing socio-economic development levels of regions are one of the most important challenges of the NUTS regions. Therefore, at least 70-75% of the regions are expected as developed in time. However, the result of the evaluation of six parameters is an evidence to deduce that one and the main goal of the NUTS regions is not achieved. Unrealized expectations and promises are distinguished by lack of consideration about the approach, its basis, background, and future. Almost none of the goals is actualized. Hence, there is a need for a reasoned approach.

Consequently, the aims of the current region approach, which are to ensure regional development, reduce inter and intraregional disparities, distribute funds in balanced regard to regional development, create job opportunities by using local potential, etc., cannot be achieved. Both socially and economically, regions do not compete on

the same basis with the same opportunities. Some regions are dominant when others are ignored. This is because of misconducted actions for some regions and because of wrong decisions on region boundaries for others.



## **CHAPTER 5**

### **CONCLUSION**

#### **5.1 Summary of the Study**

Regions are the composition of economic, political and cultural relations. Many dynamics, social, economic or political, play a role in regions. The definition of the region from planning perspective should be made in a consistent way and aims and actions represented by the definition of the region must be compatible with the results. In this respect, the region approach of Turkey is not adoptable because of its cause-and-effect relations. Instead of the current perception, the functional region approach can draw a frame for the way of region understanding to follow.

Functional regions mostly have a central place and the surrounding places affected by and a system of interactions defines them. The approach advocates blurred boundaries and new borders of globalized regions. Indeed, boundaries of the functional region can change over time because of changes in interrelations between the elements of the region and also between the regions. Functional regions emerge regarding interactions, flows and relations between different parts, and parts of the region come together according to logical reasons and needs. They gain attention in many aspects. Regions are seen as the economic locomotives in the globalized world. Also, they are considered as the most convenient scale for intervention. The functional region development process is both multi-actor and multi-level. All public and private sectors should take place and all stakeholders from local, regional and national, are important for the development process.

Policies which are targeting the entire country are not beneficial for heterogeneous countries. There is an imbalance between inter-provinces and inter-regions in Turkey. For this reason, national and holistic policies that evaluate the whole country

under the same conditions cannot be expected to have sufficient impact. The policy applied for a region in functional regions is area-specific and differs among areas according to the characteristics of the local. Accordingly, suitable strategies can be produced in parallel to potential resources of the territory; this provides effective target setting and a higher success rate. All policies made in the parts are the building blocks of the region's needs, expectations, and current situation. The implementation of multiple territorial policies increases the variety and number of development policies and strategies. The multiplicity and diversity of policies and strategies enable potentials to be used and efficient use of resources. Also, making policies and strategies on a smaller scale ensures that possible negative effects can be predicted, intervened faster and controlled without affecting the whole.

Functional regions are not randomly formed units but based on common interest. Each part has a reason to stand together and contribute to the whole. The integrity of the meaningful parts creates self-contained regions. It can be provided to stimulate and improve the backward regions. Establishing a balance between regions within a country applying development policies according to their current potential can be an improving power for the backward and neglected regions. The state does not dominate the region within functional region systems and plays a supportive role. This creates a new scale for policy-making and also an independent governance actor, a new identity at a new scale of governance and space, which accelerates and strengthens both decision-making and development processes. Mobility is also a main defining feature of the region. All types of mobility apply to regions; labor, capital, etc. Mobility strengthens the functional unity of the region by increasing connectivity within the region. It creates a force cycle within itself economically and socially. It reduces expectations from outside.

Turkey's region approach started by adopting the current and continued with border-based solutions. Although there are some attempts to find a new and convenient way for regional planning actions, policies in practice were not long-term solutions. Actions are made by revising and expanding the municipal borders or making little changes in laws and regulations. Those attempts aimed to find answers to three

problems; establishment of coordination between the municipalities and the provincial practices of the central government, the existing development legislation can be opened to upper-scale plans within its closed structure, the need for a paradigm shift in urban planning.

The current geographic regions have not been considered in the determination of NUTS regions. Region boundaries have been determined depending on many criteria; the amount of population comes first among these criteria. Region boundaries were determined according to provincial administrative areas. In Turkey, the region refers to NUTS2 regions, a wider geographical area than the province, created by clustering several provinces. Hence, there is no attention on socio-economic potentials and development. The creation of NUTS regions in Turkey lies in the necessity of the establishment of Regional Development Agencies and agencies of each NUTS2 regions have the aim to ensure regional development of the regions, which is not realized. Because the current approach of Turkey failed to keep promises and there is a need to change this approach with a reasoned theoretical and practical understanding, the functional region principles are convenient to deal with the challenges of regions.

## **5.2 Evaluation of the Turkish Region Approach: Summary of the Findings**

The current region approach of Turkey advocates it has similar goals with the functional region approach. However, it is open to discussing whether the current approach achieves those goals or not. The region represents NUTS2 regions adopted by the EU harmonization process in Turkey. As a ready-made 'product' accepted only according to the distinctions that come with the harmonization process, it indicates that the same 'product' can be destroyed with the breakdown of the loyalty to the union. This situation arises from the fact that understanding is not based on solid foundations, which is also mentioned in the State Supervisory Council Report about Evaluation of Turkey's Development Agencies Experience in 2014 and Development Agencies General Audit Report-2018 prepared by the Court of

Accounts in 2019. Especially in Development Agencies General Audit Report-2018, there is an overall negative consideration on the operation of NUTS regions and RDAs in Turkey. Furthermore, the NUTS2 regions, which are determined only on the basis of administrative boundaries and distance-based proximity, show the conceptual deficiency of the regional understanding within the country and give rise to the thought that they are restricted beyond certain borders.

Administrative authorities in Turkey are in a direct relationship with the agencies. There is even a total dependency on state organs. The law shows that the agency can be explained with definitions such as "consultant", "support unit" or "researcher". So, the independency principle of regions accepted at the international level is not provided in Turkey. Furthermore, behind the establishment of NUTS regions, one of the important reasons is the realization of controlling and coordinating the fund distribution. However, it can be deduced that balanced and controlled fund distribution has not been realized. According to the Investment Incentive Map (2020), 1st region incentives are mainly on the west while 6th region incentives are on the west and southwest. Therefore, balanced fund distribution within the region cannot be provided and the strong get stronger while the weak stand in place.

There are inconsistencies between theory and practice. Law No.5449 is a manifesto for the current understanding in Turkey. In general, articles of the law and the actions on regions are not parallel with each other. Ensuring the proper and effective use of resources and activating local potential, reducing inter-regional and intra-regional development differences are statements of law about the goals of RDA's. However, researches show the economic activities of the regions are insufficient and the resources are not used effectively. Also, inter-regional disparities between the west and east of Turkey are about 83% valid. The proposed policies within the scope of development plans increased the differences between regions rather than eliminating them. Also, in these conditions, the competitive environment is only overwhelming for some regions. Another result that can be shown as an example of inter-regional disparities is the 6-stage provinces ranking. In all SEGE studies, especially Istanbul and the surrounding provinces and the provinces in the west were defined as 1st and

2nd degree, while the 5th and 6th degree developed provinces are located in the southeast and east. The provinces in the east have decreasing ranking and index levels, while those in the west have increasing or unchanged rankings and indexes. Thus, the balance in the regions has not changed significantly over time and so successful policy implementation towards reducing the development difference between the regions cannot be made.

This situation can be seen not only in inter-regional development levels but also in intra-regional development levels. The map of provinces divided into six tiers according to their development order and development rankings/indexes shows the incompatibility of NUTS2 regions with socio-economic proximity. The development levels of the provinces within the borders of the NUTS2 region show a quite heterogeneous structure. In addition, this situation did not change over time and the differences within the region could not be reduced. Intra-regional heterogeneity could not be resolved.

Evaluating six different aspects; employment and unemployment rates, population, net migration, migration velocity and gross national product per capita also shows reducing inter-regional disparities is not achieved. If the country is divided into east and west, the regions in the west attract people while the east chase away. Regions in the east worsen economically. Therefore, these regions cannot compete with others. Furthermore, it can be considered investments and incentives which create job opportunities and support economic development are not enough for those regions and this shows the distribution of funds which is one of the important aims cannot be made in balanced. When regions are investigated according to whether they developed in terms of these six parameters in time or not, it can be distinguished 50% of them could not make progress. Even %23 of the regions have been below the average development. Hence, it is another evidence for providing overall regional development goal of the NUTS regions could not be achieved.

To sum up, a region approach should be established on flows and relations in order to be able to fulfill all the dynamics. The functional region understanding takes shape

according to the area and dynamics there. Each region is unique and creates a new form in itself. Conversely, NUTS2 regions are only based on border neighborhood in both theory and practice. This approach cannot provide homogeneous investment and fund distribution within the region. As it can be understood from the law about RDAs/NUTS, the foundation of the current regional understanding is based on the adaptation and domestication of a situation that must be accepted in the EU harmonization process in a way that does not affect the existing system and traditional methods and even will be almost ineffective within itself.

### **5.3 Discussion**

Understanding the regions is a critical issue in terms of the future of societies. All economic and social decisions are made in parallel to the principles of the understanding. Thus, development and underdevelopment levels depend on the region approach. Conversely, the current approach of Turkey has many weak points on its cognitive and practical sides. There are many negative results brought by that weakness. The functional region approach creates solutions to those results by its theoretical and practical strength.

Initially, as a cognitive conflict, the current approach is based on complete dependency on the state, which causes regions have no power over their future. Regions with their organizations have power only to consult. The state is the primary decision-maker on them. However, the functional region approach gives power on the state to be a supporter. It makes regions the main authority on itself and gives an identity in the administrative structure. Furthermore, the current region approach is almost completely based on distance proximity, although it advocates it gives attention on socio-economic development. This brings in lack of harmony, conceptual weakness, no strong foundations and overwhelmed regions. On the other side, the functional region approach only cares about socio-economic development; there is no importance of distance. By its well-designed theoretical background, it provides constant harmony, a parallelism between aim and practice, availability to

get service from related regions and resilience to changes. Also, the current approach cannot create solutions for regional disparities. The existence of dominant and neglected regions is an evidence for it. As understood from researches on this issue, there has been no change in this situation throughout the time. Even disparities in and between the regions increase in time rather than decrease. The main reason for it is the establishment logic of the current approach, distance-based proximity concern. Regional disparities can only be solved by considering social and economic conditions, which is the logic of the functional region approach. The functional region approach promises to minimize disparities and the number of dominant/neglected regions by giving importance to socio-economic development. While reducing these, it maximizes the support of regions.

Table 5.1 Causes of two Approaches and Effects on Regions

	The Current Approach		Functional Region Approach	
	Cause	Effect	Cause	Effect
<b>Establishment Logic</b>	Distance-based Proximity	Not always being able to get service from the related region	Socio-economic proximity	Always get service from and serve to related region
		Lack of harmony		Constant harmony
		No solid foundations		Adaptable to changing conditions; strong linkages
		No relations in some regions		Exact connections in and between regions
		Conceptual deficiency		Coherence of aim and practice
<b>Dependency</b>	Complete Dependency to State	Being a researcher, consultant, etc.	Independent Structure	A new identity
		Not primary decision-maker		The main authority on itself
		No power about itself		Direct operator
<b>Disparities</b>	Unsolved Inter- and Intra-regional Disparities	The dominance of certain areas	Minimized Inter- and Intra-regional Disparities	No exact dominance of certain regions
		Ignored regions		No neglected regions
		No change in imbalance conditions		Maximization of balance in economic and social supports
		Increasing differences rather than decreasing		Attempts to get rid of differences completely

Table 5.1 shows the weaknesses of the current region approach and promises of the functional region approach against the current region approach. As seen on it, the functional region approach gives another way to follow and advocates flexible conditions and actions for each region. It accepts each region has a unique past and future. The region approach in Turkey should also be on a similar basis to solve the issues of the current region approach.

Consequently, the region approach in Turkey should not be dependent on a harmonization process; borders of regions must be less controlled by laws and after a comprehensive study, they must be reorganized according to principles ordered by the functional region approach. Unlike the current approach, functional regions promise less disparity, difficulty, dependency, dominancy, ignorance, imbalance but more harmony.

#### **5.4 The Further Studies**

The term of the region is used for policy and planning on different scales. Thus, this flexibility of scale brings regions in being the most convenient scale for the decision-making process. Besides, it makes the region approach more fragile to make sustainable and unquestionable policies. It is becoming a more remarkable issue in Turkey because ‘individual’ cities evolve into more complex structures.

The basis of this research was inferred from literature review and the study was carried out by mostly review and evaluation of secondary data. Also, visual and written documents were collected in order to make the study more comprehensive. Because of the scale of the research, there was no data physically collected in the field. Most of the collected data is quantitative. Collecting and reaching social-based data was not available in Turkey at a maximized level. In research, Turkey was discussed as the case study. There is no clear evidence about the future of the region approach in Turkey. If EU candidateship ends, the region approach loses its meaning. Already, the future of the provinces, especially in the east, is left to luck.

In further studies, in-depth interviews can be conducted with the administration of RDA's about unknown negative effects and weaknesses of NUTS. Also, existing functional regions in Turkey can be discussed further. Their contributions to the country and challenges can be examined in more detail. Also, their positive and negative sides different from the other regions can be evaluated. Except from the knowns, unappointed functional regions in Turkey may be chased according to the framework for investigating them.



## REFERENCES

- Berber, M., & Çelepçi, E. (2005). Türk Bölgesel Kalkınma Politikalarında Yeni Arayışlar: Kalkınma Ajansları ve Türkiye'de Uygulanabilirliği. *Karadeniz Bölgesel Kalkınma Sempozyumu*, (pp. 146-155). Trabzon.
- Board of Education (Maarif Vekilliği). (1941). *Birinci Coğrafya Kongresi - Raporlar Müzakereler Kararlar (First Geography Congress, Reports, Negotiations, Decisions, Board Of Education)*. Ankara: Maarif Vekilliği.
- Castells, M. (1996). *The Rise of the Network Society*. Oxford: Blackwell Publishers.
- Coombes, M. (2014). From City-Region Concept to Boundaries for Governance: English Case. *Urban Studies*, 51(11), 2426-2443.
- Court of Accounts (Sayıştay Başkanlığı). (2019). *2018 Yılı Kalkınma Ajansları Genel Denetim Raporu*. (Sayıştay Başkanlığı).
- Davoudi, S. (2003). Polycentricity in European Spatial Planning: From an analytical tool to a normative agenda. *European Planning Studies*, 11(8), 979-999.
- Davoudi, S. (2009). City-Region. In N. Thrift, & R. Kitchin, *International Encyclopedia of Human Geography* (pp. 125-135). Oxford: Elsevier.
- Eraydın, A. (2004). Bölgesel Kalkınma Kavram, Kuram ve Politikalarında Yaşanan Değişimler. *Kentsel Ekonomik Araştırmalar Sempozyumu*, (pp. 126-146). Denizli.
- Eraydın, A. (2010). Bölgesel kalkınmanın yönetişim çerçevesinde kurumlaşması: Kalkınma Ajansları (Regional Development Agencies: The institutionsation of regional policies within the framework of governance). In *Bölgesel*

*Kalkınma Ajansları* (pp. 9-30). İstanbul: Friedrich Nauman Vakfı: Cihan Ofset.

Erlebach, M., Halas, M., & Klapka, P. (2014). Inner structure of functional region: theoretical aspects. *XVII. mezinárodní kolokvium o regionálních vědách*, (pp. 722-727). Hustopeče.

Ersoy, M. (2011). Some Observations and Recommendations on the Practice of Upper Level Urban Plans in Turkey in the Light of Sustainable Development. *11th APSA Congress*. Tokyo.

Gertler, M. S. (2001). Urban economy and society in Canada: flows of people, capital and ideas. *Isuma: The Canadian Journal of Policy Research*, 2(3), 119-130.

Hall, P., & Pain, K. (2006). *The Polycentric Metropolis: Learning from Mega-city Regions in Europe*. London: Earthscan Publications Ltd.

Hasanoğlu, M., & Aliyev, Z. (2006). Avrupa Birliği ile Bütünleşme Sürecinde Türkiye'de Bölgesel Kalkınma Ajansları. *Sayıstay Dergisi*, 60, 81-103.

Henriksson, R., Kauppinen, T., & Hyvönen, E. (2008). Core Geographical Concepts: Case Finnish Geo-Ontology. *The First International Workshop on Location and the Web (LOCWEB '08)* (pp. 57-60). New York: Association for Computing Machinery. doi:10.1145/1367798.1367807

Hildreth, P., & Clark, G. (2005). Working Draft Position Paper for Cross Departmental. *City-Regions Policy Residential Workshop*.

Karasu, K. (2015). Kalkınma Ajansları: "Modelimi Kaybettim. Hükümsüzdür" (Ölçek Siyasetinin Yerelliği). *Ankara Üniversitesi SBF Dergisi*, 273-316.

- Kayalak, S., & Kiper, T. (2006). İstatistik Bölgeleri Birimleri Normenklatörüne (NUTS) Göre Türkiye'de Bölgesel Farklılıklar. *IV.Ulusal Coğrafya Sempozyumu* (pp. 45-62). Ankara: Ankara Üniversitesi Türkiye Coğrafyası Araştırma ve Uygulama Merkezi.
- Köroğlu, T. (2012). Yerel Yönetimlerin Mekânsal Organizasyonu: Kentsel Bölgeler ve Alternatif Bir Metropoliten Alan Tanımlaması. *Kent Bölgeler, Metropoliten Alanlar ve Büyükşehirler: 3. Kentsel ve Bölgesel Araştırmalar Sempozyumu*, (pp. 35-49). Ankara.
- Lagendijk, A., Kayasü, S., & Yasar, S. (2009). The Role of Regional Development Agencies in Turkey from Implementing EU Directives to Supporting Regional Business Communities?. *European Urban and Regional Studies*, 16(4), 383–396
- Law, S., & Versluis, L. (2015). How do UK regional commuting flows relate to spatial configuration? *10th International Space Syntax Symposium*.
- Lüthi, S., Thierstein, A., & Goebel, V. (2007). Places of flows in the Mega-City Region of Munich - considerations for spatial development policies. *EUGEO (The Association of European Geographical Societies)-Conference*. Amsterdam.
- Metzger, J., & Paasi, A. (2017). Foregrounding the region. *Regional Studies*, 51(1), 19-30. doi:10.1080/00343404.2016.1239818
- OECD. (2016). *Assessing Regional Competitiveness in Turkey*. Paris: OECD.
- Oğuz, C., & Sönmez, İ. Ö. (2012). Kentsel Bölgelerde Yönetişimin ve Bütünleştirmeci Yaklaşımların Yerel Yönetimler Üzerindeki Etkilerinin Değerlendirilmesi - İzmir Örneği. *Kent Bölgeler, Metropoliten Alanlar ve Büyükşehirler: 3. Kentsel ve Bölgesel Araştırmalar Sempozyumu*, (pp. 81-93). Ankara.

- Özdemir, S. S. (2019). A New Route for Regional Planning in Turkey: Recent Developments. In Ö. B. Sarı, S. S. Özdemir, & N. Uzun (Eds.), *Urban and Regional Planning in Turkey* (pp. 13-37). Springer Nature Switzerland AG. doi:10.1007/978-3-030-05773-2
- Parr, J. B. (2005). Perspectives on the City-Region. *Regional Studies*, 39(5), 555-566.
- Pose, A. R. (2008). The Rise of the “City-region” Concept and its Development Policy Implications. *European Planning Studies*, 16(8), 1025-1046.
- Scott, A. J. (2000). Global City-Regions and The New World System. Los Angeles: Unpublished Paper, Department of Policy Studies and Department of Geography, University of California.
- Spinuzzi, C. (2003). *More than One, Less than Many: A Review of Three “Post-ANT” Books*. Austin: Texas ScholarWorks-Currents in Electronic Literacy.
- Şengül, Ü., Eslemian, S., & Eren, M. (2013). Türkiye'de İstatistikî Bölge Birimleri Sınıflamasına Göre Düzey 2 Bölgelerinin Ekonomik Etkinliklerinin VZA Yöntemi ile Belirlenmesi ve Tobit Model Uygulaması. *Yönetim Bilimleri Dergisi*, 11(21), 75-99.
- Taş, B. (2006). AB Uyum Sürecinde Türkiye için Yeni Bir Bölge Kavramı: İstatistikî Bölge Birimleri Sınıflandırması (İBBS). *Sosyal Bilimler Dergisi*, 185-197.
- Tekeli, İ. (2004). Türkiye'de Kent-Bölgeleri Üzerinde Düşünmek. *Değişen-Dönüşen Kent ve Bölge: 8 Kasım Dünya Şehircilik Günü 28. Kolokyumu* (pp. 73-89). Ankara: TMMOB Şehir Plancıları Odası.
- The Ministry of Industry and Technology. (2003, 2011, 2017). *İllerin ve Bölgelerin Sosyo-Ekonominik Gelişmişlik Sıralaması Araştırması (SEGE)*. Ankara: General Directorate for Development Agencies.

Uzun, N., Özdemir Sarı, Ö. B., & Özdemir, S. S. (2019). Urbanisation and Urban Planning in Turkey. In Ö. B. Sarı, S. S. Özdemir, & N. Uzun (Eds.), *Urban and Regional Planning in Turkey* (pp. 1-9). Springer Nature Switzerland AG. doi:10.1007/978-3-030-05773-2

Vermeijden, B. (2001). Dutch urban renewal, transformation of the policy discourse 1960-2000. *Journal of Housing and the Built Environment*, 16(2), 203-232.

Webb, D., & Collis, C. (2000). Regional Development Agencies and the 'New Regionalism' in England. *Regional Studies*, 34(9), 857-864.

#### **Electronic Sources:**

GaWC Research Network: <https://www.lboro.ac.uk/gawc/group.html>

<https://www.kgm.gov.tr/Sayfalar/KGM/SiteTr/Trafik/TrafikHacimHaritalari2020.a spx>

<https://www.eurada.org/>

<http://www.gap.gov.tr/il-profilleri-sayfa-137.html>

<https://www.dokap.gov.tr/dokap-illeri/sayfa/71>

<http://www.kop.gov.tr/sayfalar/kop-illeri/63>

<http://www.dap.gov.tr/baskanlik/dap-bolgesi-i%C2%B7llerileri/>

#### **Laws and Regulations:**

Law No. 5449:

<https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5449&MevzuatTur=1&MevzuatTertip=5>

Law No. 3194:

<https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=3194&MevzuatTur=1&MevzuatTertip=5>

Law No. 2981:

<https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=2981&MevzuatTur=1&MevzuatTertip=5>

Law No. 5747:

<https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5747&MevzuatTur=1&MevzuatTertip=5>

Law No. 6785:

<https://www.resmigazete.gov.tr/arsiv/9359.pdf>

Law No. 1580:

<https://www.resmigazete.gov.tr/arsiv/1471.pdf>

Cabinet Decree No. 4720:

<https://www.resmigazete.gov.tr/eskiler/2002/09/20020922.htm#3>

Presidential Decision No. 4191:

<https://www.mevzuat.gov.tr/MevzuatMetin/20.5.4191.pdf>

Presidential Decree No. 4:

<https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=4&MevzuatTur=19&MevzuatTertip=5>

Decree Law No. 703:

<https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=703&MevzuatTur=4&MevzuatTertip=5>

Decree Law No. 540:

<https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=540&MevzuatTur=24&MevzuatTertip=5>