

**COMMODIFICATION OF NATURE AND
ACCUMULATION BY DISPOSSESSION
IN KARABURUN PENINSULA**

**A Thesis Submitted to
the Graduate School of Engineering and Sciences of
İzmir Institute of Technology
in Partial Fulfillment of the Requirements for the Degree of**

MASTER OF SCIENCE

in City Planning

by

Yağmur ÖZCAN CİVE

**July 2019
İZMİR**

We approve the thesis of **Yağmur ÖZCAN CİVE**

Examining Committee Members:



Prof. Dr. Hayriye ÖZEN

Department of Sociology, İzmir University of Economics



Assoc. Prof. Dr. Adile ARSLAN AVAR

Department of City and Regional Planning, İzmir Institute of Technology



Asst. Prof. Dr. Nicel SAYGIN

Department of City and Regional Planning, İzmir Institute of Technology

2 July 2019



Assoc. Prof. Dr. Adile ARSLAN AVAR

Advisor, Department of City and
Regional Planning, İzmir Institute
of Technology



Assoc. Prof. Dr. Ali Can DEMİRKESEN

Head of the Department of City and
Regional Planning

Prof. Dr. Aysun SOFUOĞLU

Dean of the Graduate School of
Engineering and Science

ACKNOWLEDGMENTS

I am certain that the thesis wouldn't exist without the support of the following individuals and institutions.

Firstly, I would like to thank my advisor Assoc. Prof. Dr. Adile ARSLAN AVAR for her guidance, patience, insight and criticisms. The thesis has taken shape thanks to her knowledge.

Secondly, I would like to thank Prof. Dr. Hayriye ÖZEN and Asst. Prof. Dr. Nicel SAYGIN for their attendance at my thesis defense and their precious contributions in my thesis.

I would like to give special thanks to Karaburun City Council and Çiğdem AKÇURA for their help in the data collection and interview process.

I would like to thank Semahat ÖZDEMİR for her help in data collection process. I especially thank Zerrin BALCI for her technical support.

I am so grateful to my family members; Korkut Özcan, Asiye Özcan, Yalın Özcan and Burak Cive for their unlimited supports that help me to finish the thesis. They have been always with me on this difficult path. Especially, my father has accompanied me during the all field surveys. My husband has helped me voluntarily during the thesis process. Their encouragements were the greatest support for me to find my way and complete this process successfully.

Finally, I would like to thank everyone who supported and encouraged me in this process. Especially, I am grateful to my friends Ayça UYSAL and Miray GÜMÜŞ who have experienced this process with me for their support to finish the thesis.

ABSTRACT

COMMODIFICATION OF NATURE AND ACCUMULATION BY DISPOSSESSION IN KARABURUN PENINSULA

Biophysical areas and resources have been privatized, and subjected to market in response to requirements of the capital accumulation with the view of overcoming the crisis of capitalism in the 1970s. Natural areas previously untouched or used for local production have become “spatial fixes”, to which global capital switched, through state regulations. In other words, there has been an increasing intervention into natural areas, and occurred an intense form of commodification of nature. Privatization, commodification and marketization of these areas lead to environmental degrading. Besides, enclosure of these areas to prevent access of local people to use these natural sources causes them not to able to keep on their livelihood activities. Local people who have been taken away from their common lands or private properties by being deprived of use or ownership are becoming increasingly impoverished and dispossessed.

Neoliberal practices after 2000 in the Karaburun Peninsula are striking examples of commodification of nature and accumulation by dispossession. This study examines neoliberal regulations, policies and practices, the overlap between the natural areas and investments, and ownership of these areas in Karaburun Peninsula. As a result, it is seen that the pasture areas used by the villagers to earn their living have been narrowed; their properties have been expropriated and then allocated for wind power generation and industrial olive cultivation. Moreover, the increase of mining investments, fish farms and secondary dwellings on state lands, agricultural lands, pastures and coastal areas have led to privatization of natural areas and restriction of local access.

ÖZET

KARABURUN YARIMADASI'NDA DOĞANIN METALAŞMASI VE MÜLKSÜZLEŞTİRME YOLUYLA BİRİKİM

1970'lerde kapitalizmin krizinin üstesinden gelmek amacıyla sermaye birikiminin gerekliliğine cevap olarak biyofiziksel alanlar ve kaynaklar özelleştirilmiş ve pazar unsuru olmuştur. Daha önce el değmemiş veya yerel üretim için kullanılan doğal alanlar, devlet düzenlemeleri ile küresel sermayenin aktarıldığı “mekânsal sabiteler” haline gelmiştir. Başka bir deyişle, doğal alanlara müdahale artmış ve doğanın metalaşmasının daha yoğun bir biçiminin ortaya çıkmıştır. Bu alanların özelleştirilmesi, metalaşması ve pazarlanması çevresel bozulmaya yol açmaktadır. Ayrıca, yerel halkın bu doğal kaynakları kullanmasını engellemek için bu alanların etrafının çevrilmesi, yerel halkın geçim faaliyetlerine devam edemelerine neden olmaktadır. Kullanım veya mülkiyet hakkından yoksun bırakılmak suretiyle ortak arazilerinden veya özel mülklerinden uzaklaştırılmış olan yöre halkı giderek yoksullaşmakta ve mülksüzleşmektedir.

2000 yılından sonra Karaburun Yarımadası'ndaki neoliberal uygulamalar, doğanın metalaşmasının ve mülksüzleştirme yoluyla birikimin çarpıcı birer örneğidir. Bu çalışmada Karaburun Yarımadası'ndaki neoliberal düzenlemeler, politikalar ve uygulamalar, doğal alanlar ve yatırımların örtüşme durumu ve bu arazilerin mülkiyet durumları incelenmiştir. Bunun sonucunda, köylülerin geçimlerini sağlamak için kullandıkları mera alanları daraltıldığı, mülklerinin kamulaştırıldığı ve daha sonra rüzgar enerjisi üretimi ve endüstriyel zeytin yetiştirme faaliyetleri için tahsis edildiği gözlemlenmektedir. Dahası maden yatırımları, balık çiftlikleri ve ikincil konutların devlet arazilerindeki, tarım ve mera alanlarındaki ve kıyılardaki artışı doğal alanların özelleştirilmesine ve bu alanların yerel kullanımının kısıtlanmasına sebep olmaktadır.

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LIST OF ABBREVIATIONS

AKP	Justice and Development Party
CITIES	Convention on International Trade in Endangered Species of Wild Flora and Fauna
SPO	State Planning Organization
EPDK	Energy Market Regulatory Authority
EU	European Union
GIS	Geographical Information System
GNP	Gross National Product
IMF	International Monetary Fund
NGO	Non-Governmental Organization
OECD	Organization for Economic Co-operation and Development
POAŞ	Petrol Ofisi Corporation
RCA	Regional Advisory Council
TBMM	Grand National Assembly of Turkey
TEDAŞ	Turkish Electricity Distribution Corporation
THY	Turkish Airlines
TMMOB	Union of Chambers of Turkish Engineers and Architects
TUIK	Turkish Statistical Institute
UE	Urgent Expropriation
UNESCO	United Nations Educational, Scientific and Cultural Organization
WPCA	Watershed Planning and Advisory Council

CHAPTER 1

INTRODUCTION

The aim of this study is to show why and how the natural areas are commodified and how this commodification results in “dispossession” of local people in Karaburun Peninsula. These questions will be answered depending on what kind of investments in natural areas of the Peninsula were done; what kind of regulations and policies were enacted in support of private investments; and what socio- environmental and economic impacts of them are, with a special emphasis on “accumulation by dispossession”.

The Peninsula presents how natural areas were occupied for the sake of capital accumulation, and how accumulation by dispossession and environmental degrading occur with neoliberal policies and practices. Nature’s neoliberalization with its strategies, means and consequences are observed in the Peninsula. The private investments such as quarries, wind turbines and industrial olive production, and the new proposal of alternative tourism with its transportation links have been supported by new enactments, deregulations, and reregulations in the Karaburun Peninsula after 2000. In this process, privatization, marketization, and enclosure have been occurred by the allocation of pastures, forests, coastal waters, agricultural lands, natural protection areas and partly private properties to private firms at the expense of livelihood of local people. Hence, the natural areas and features of the Peninsula became “spatial fixes” for the capital accumulation.

Firstly, privatization and marketization of the natural areas for tourism activities have been supported by the enactment of Tourism Incentive Law (no. 2634) in 1982. Then, secondary house development began at coastal line of the Peninsula as an early neoliberal practice, after 1990. After 2000, the process has occurred obviously by reregulation of the laws related to natural areas such as Forest law (no. 6831) and Pasture Law (no. 4342). Wind power production began to be carried out on the natural common lands by of marketization of energy (supported by an early neoliberal law, the Assignment of Institutions except Turkey Electricity Administration for Electricity Production, Distribution and Trade Law” (no. 3096) in 1984) and the constitution of the legal

framework for the private sustainable energy sector in 2005. Moreover, the pastures in the Karaburun Peninsula were converted into olive groves under the name of “private forestation” by the enactment of Forestation regulation after 2006. Thus, allocations and expropriations for the investments began to occur in common lands such as pastures and forests, or private properties of villagers. Besides, following a regulation in related law on aquaculture production in 2003, fish farms have increased in the coastal waters of the Peninsula. As aquaculture activities have become intensified and the coastal waters of the Peninsula were privatized and enclosed, so was local fishery forbidden in the areas after 2008.

Natural areas of the Peninsula have been exposed to spatial and governmental restructuring and rescaling. Authorities of the natural and rural areas have been transferred to more central institutions such as Metropolitan Municipalities and Ministries with new laws and regulations. Also, national and international regulations on natural conservation brought about new regulations. Lastly, Ildırı and Karaburun was announced as “Special Environment Protection Region” by the decision of Presidency of the Republic, and all authorities about the area were transferred to Ministry of Environment and Urbanization. It is witnessed that, on one hand, the laws and plans bring conservation decisions, on the other hand reregulations in laws and revisions in plan decisions are made over and over to facilitate private investments in natural areas. The increase in the private investments in the Peninsula and conservation initiatives as “neoliberal conservation” have continued in a coordinated way. Fish farms and their logistic activities spread on the coasts, the wind farm project areas cover 40% of the Peninsula, and the industrial olive groves are located on pastures. Moreover, tourism strategies and secondary houses are located on protection areas, coast or agriculture lands. Therefore, what is of importance is to provide “sustainable capital accumulation” depending on nature, rather than “natural conservation”.

As to the organization of the thesis, the concept of neoliberalisation of nature is introduced with its debates, historical background, means and impacts in Chapter 2. The change of commodification of nature and accumulation by dispossession associated with the neoliberalization of nature are explained as well. The examples of neoliberalization of nature practices all around the world are examined in the same Chapter.

The Chapter 3 elaborates on the neoliberalization process of Turkey, and the historical background of the nature absorbed in capital accumulation. Besides, the legal framework about the natural areas and the institutional rescaling and restructuring are examined by introducing the laws, regulations and the reregulations by years in the same chapter.

The method of the thesis research is introduced in the Chapter 4. It includes the data collection techniques and process, the sources of the data and the analysis techniques used for investigating commodification of nature and accumulation by dispossession in Karaburun Peninsula.

In the Chapter 5, the general socio-economic and natural structure of Karaburun Peninsula, and the changes in natural areas and rural characteristics of the Peninsula with the changes in land use, and institutional restructuring and rescaling and accordingly changes in the administrative authorities over the areas are presented.

The investments, approval and operation processes and the supportive policies for them are examined in the Chapter 6. Industrial olive groves, aquaculture, mining, secondary houses and wind farms, and their overlaps with natural areas and the ownership of the lands are presented in this chapter. In addition, the means of the changing property rights are defined, and the synthesis maps are produced to indicate and explain these findings.

Following the presentation of the findings, the Chapter 7 elaborates on and indicates the impacts of neoliberalisation of nature, that is, environmental degradation and accumulation by dispossession in the Peninsula. In this chapter, the environmental degradation caused by the investments is examined and evaluated based on expert reports, environmental assessment reports, former studies about the impacts of the investments, and current digital data about the sensitive areas of Peninsula and the overlaps between land use and the investments indicating accumulation by dispossession in this chapter. The findings of interviews, the declaration of the villagers and living people in the Peninsula, and the opinions of the expert reports supporting the findings on accumulation by dispossession are also presented in this chapter. The Chapter 8 is the concluding chapter of the thesis. In conclusion, the findings are evaluated and discussed, and some suggestions about the policies and the future researches in Karaburun Peninsula are introduced.

CHAPTER 2

CONCEPTUAL FRAMEWORK

2.1. Neoliberalizing Nature

The human being as a part of nature has commodified non-human nature to sustain its existence and make profit. Commodification of nature has been intensified and amplified with neoliberal understanding and policies. The concept “neoliberalizing nature” refers to a market based exploitation and control of non-human nature more expeditiously (Castree 2003; see Duffy 2008, 327). Castree examines neoliberalizing nature in the light of following questions: why neoliberalization of non-human phenomena differentiate from place to place; how nature is neoliberalized by general rules; what the impacts of this process are, and what possible impacts would be (Castree 2008, 131). Before all the questions, the point why human being neoliberalised nature should be clarified. And dependently, it should be examined why nature and environmental conservation have become critical.

There are many debates about reasons for or logic behind these issues. The debates will be explained in detail in a separate chapter in the following pages. It is accepted that environmental policies are regulated to promote neoliberal practices (Castree 2008, 133). Castree explains four logics behind this situation through “environmental fixes”; (1) “free-market environmentalism” which allows the use and conservation of nature as a solution for contradiction between economy and nature; (2) creating a natural environment which is conserved, state-controlled and left to market rationality as new potential for capital accumulation (in other words “neoliberal conservation”); (3) offering new and extended rights for private actors/firms on new potential natural areas leading to degrading of biophysical world; and (4) redefining the role of state in a way of providing the use of biophysical resources, and intervening relations between capitalist economy, nature and society (Castree 2008, 146-149; Rytterri and Puhakka 2012, 256-257). Thus, neoliberalizing nature seems as a solution for not only contradiction between finite

environment and economy but also extending the limits of capital by opening natural areas for capital accumulation.

Likewise, according to Braun, neoliberal nature is associated with new form of primitive accumulation. It emerged through the transition to market-based environmental governance. The extension of capital accumulation began to occur in natural areas and on a global scale. The new form of commodification of nature and “the expropriation of global nature” (Braun 2015, 5). Having been integral to uneven development and dispossession, neoliberal nature appears with a differentiating characteristic from primitive accumulation (Harvey 2003, 2005, and 2006 see Neves and Igoes 2012).

McCarthy and Prudham (2004) argue that neoliberalism, environmental politics and environmental changes are intermingled with multiple complex relations and consequences. The networks of the concepts can be clarified via understanding emergence of the concepts and their roles. Neoliberalism and modern environmentalism revealed as ideological foundations of Post-Fordist social regulation. Nature became an important feature to regulate market-based system as the source of the surplus, richness and also labor force after the 1973 crisis (see Apostolopoulou and Adams 2014, 15-16). Neoliberalism alters the social relations with the intervention of the biophysical world. It brings along significant environmental consequences. Besides, environmental concerns became a political opposition of neoliberalism (McCarthy and Prudham 2004, 275). Hence, the keystones of neoliberalizing nature as neoliberalism and modern environmentalism came up the aim of social and economic regulation; it led to political and environmental changes and consequences due to interventions in relations of nature and human being, as well.

The first question about why and how neoliberal practices differentiate is answered with some concepts such as “path dependency” and “geographical constitutions”. Although neoliberalism is a global project, local characteristics alter the ways and impacts of neoliberal practices. According to Mansfield (2004), the divergence of geographies and their various historical contexts are evident (see Castree 2008, 134). Neoliberal practices change form according to these factors because strategies, methods and actors change depending on local characteristics (Castree 2009, Duffy and Moore 2010 see Ryterri and Puhakka 2012, 257). Thus, operations of the neoliberalism and neoliberalising nature are evaluated within the ecological, historical and spatial contexts.

It varies rather than being flat and homogenous (Richardson et al. 2000 and Mansfield 2004 see Bailey 2007, 545). Thus, the processes should be explained by taking Mansfield's (2004) concept of "geographical constitution of neoliberalism" into consideration. Besides, the practices are not based on only political or geographic boundaries. In that point, authors claim that neoliberal practices are realized in "socially constituted geographical scale" which is, in turn, constructed socially, historically and spatially (Castree 2008, 133-134).

Castree (2006, 1; 2010, 23) agrees that there are different modalities of neoliberalism. "Actual existing neoliberalism" (Brenner and Theodore 2002) which occurs in different scales such as regions, countries and cities, and depends on a complex historical, geographical contexts. For Castree (2010), neoliberalism includes different meanings such as "neoliberal philosophy, programme, and practical policy measure". Neoliberal philosophy is the whole of neoliberalism. The programme refers to principles, ways, and general political rules to apply neoliberalism. As to practical policy measure, it is the means of the neoliberal philosophy and programme. The policy measure also provides to constitute "actual existing neoliberalisms" in the real world. However, neoliberalism as plural (set of actual existing neoliberalisms) might have common or general features, which do not change according to place to place (Castree 2010, 8-9).

On the other hand, McCarthy and Prudham (2004, 276) argue that neoliberalism is an extra-local project without any general characteristics. Not only are the actual existing neoliberalisms different from each other, but also all of the neoliberal characteristics are distinctive. However, the general idea is that neoliberalism occurs differently in particular places, but principles and means to put into practice neoliberalism have common characteristics although their names or definitions change according to authors. It means that Castree's second and third questions are answered with multiple labels and concepts. Also many pathfinder thoughts reach at possible evaluated results of neoliberalizing nature.

According to Heynen and Robbins (2005, 143), neoliberalism is carried out all around the world. Also, the authors state that neoliberalizing nature is put into practice by some means. "Invisible hand" should be lengthen a wider scale to realize the means. The means and the general characteristics of neoliberal policies are *governance, privatization, enclosure, and valuation*. *Privatization* is to open and privatize un-owned, state-owned

or communally owned properties or features for the use of international or national firms (Heynen and Robbins 2005 see Castree 2008, 142-143).

Privatization brings along the *enclosure* of these properties. On the other side, when public services such as water or energy supply are transferred to private firms, *marketization* provides supply to non-bounded global market with the support of some strategies such as free-trade. Thus, the firms are assigned as *market proxies* of the public sector (Heynen and Robbins 2005 see Castree 2008, 142-143). Marketization is a subtitle of *valuation* because it assists to privatize sources and features which have previously not an economic value. In this way, natural sources and areas gain an economic value as a source of surplus. Nevertheless, the strategies cannot exist or apply without regulations of "shadow state". New *governance* model supports the whole mechanisms via *deregulation*, which is drawback intervention of the state (roll-back state) in some areas or issues to create self-governing mechanism; *reregulation* which is to provide privatization, and *flanking-mechanism* constituted by civil society groups such as NGOs, which undertake the counter role against this constructed system above like an interventionist (Heynen and Robbins 2005, 142-143).

Similarly, Bakker (2010) defines general strategies to apply different actually existing neoliberalisms. These strategies are *Privatization* as a strategy to provide property rights on unowned, communal-owned and state-owned biophysical phenomena like a private property; *Real subsumption*, which means intervene into biological process and capacity to increase profit; *Market proxies*, which is created by transferring public sector activities to private sector; *Marketization*, which changes use-value of natural sources to exchange-value (see Rytteri and Puhakka 2012, 256).

Also, Mercille and Murphy (2016) define the strategies as reducing public sector activities and services, paving the way for privatization, increasing taxes and making the labor market flexible (Hermann, 2014; 2017; Pontusson and Raess 2012; Vaughan and Whitehead 2013 see Mercille and Murphy 2017, 1041). Neoliberalism is also deepened by developing and moving the elites to a higher position (see Mercille and Murphy 2017, 1041)

As to the results of neoliberalism, it is argued that is a "more destructive form of capitalism," which empowers capitalist class but dispossesses local people (Heynen and Robins 2005; Harvey 2010 see Apostolopoulou and Adams 2014, 15-16). Thus,

“accumulation by dispossession” accompanied with the impoverishment of local people and some other negative social impacts is defined as the primary operational logic to apply different neoliberalisms in different geographical and historical context with different institutional and social structure (Brenner et al. 2010, 2; Büsher and Arsel 2012 see Neves and Igoes 2012, 164).

In conclusion, there are various debates about different aspects of neoliberalizing nature such as its ideological base, reasons and effects. Arguments about the logic of the neoliberalizing nature put an emphasis on following point: it is a strategy to sustain capital accumulation by exploiting finite nature, and to regulate economy, society, in conjunction with environmental politics. Biophysical world and resources have been opened to the use of private actors with general neoliberal means such as privatization and marketization via deregulation and reregulation practices. The neoliberal policies and practices result in environmental degrading, uneven development and dispossession of local people.

2.2. Debates on Commodification of Nature

Neoliberalising nature is associated with two bodies of literature: new materialism and critique of neoliberalism. New materialism is the understanding of non-dualistic and non-deterministic human and non-human nature. It is based on Spinoza's knowledge about the difference between *natura naturata* and *natura naturans*, and the Spinozist idea of ‘creative and open-ended nature of physical process’ (Braun 2015, 1-2). On the other side, neoliberalism is defined as a "complex assemblage" of various political, ideological, discursive and institutional practices in different geographical scales (McCarthy and Prudham 2004, 275-276).

As Neves and Igoe (2012) shows, the crisis in 1970s stimulated that capital extended its limitations into the finite resources and nature. Biophysical features began to be commodified as source of capital accumulation, and interventions into non-human nature have been intensified by neoliberal understanding. Neoliberal policies provide to marketize or financialize non-human nature. The commodification of nature deepened and changed the form. The use of the creative, unrestricted nature and natural processes has been provided by neoliberalising nature. In this process, “the inherent productivity of

nature" is financialized (Braun 2015, 1-2). Hence, "ecological resilience of capitalism" gained an "extractive-destructive nature" (O'Connor 1997 see Neves and Igoes 2012, 166).

As some authors claim that neoliberalism is based on environmental concerns, McCarthy and Prudham (2004) argue that "neoliberalism is also an environmental project, and that it is necessary so" (277). It is a result of historical context released with environmental concern as a reaction of Keynesian state. On the other hand, Bakker (2005) explains this thought based on different authors including McCarthy and Prudham: neoliberalism is "a project of environmental governance", and it is also a political economic project as it is stated by the Foucauldian governmentality theory. As Foucault (2008) argues, neoliberal governmentality is not an 'internal subjugation of individuals', but a way of intervention, which is 'environmental' (see Bakker 2005, 543).

Neoliberalism is also "conceptualized as being constituted by (and of) processes of socioenvironmental change" (see Neves and Igoe 2012, 167-168). Some concepts such as market environmentalism, ecological modernization or green capitalism appeared in connection with this thought. For example, market environmentalism tries to achieve efficiency with extending rights on private property, and pricing, commercializing, commodifying of environmental externalities accompanied to providing environmental conservation and preventing environmental degrading caused by inefficient use (see Bakker 2005, 542-544). In other words, it is claimed that environmental degrading would occur if there is no sufficient private property right on natural resources or areas, economic valuation of natural resources and regulation in the market (Baumol and Oates 1998 see Bailey 2007, 531-532). Companies and industries would approve environmentalism under these conditions and the practice and regulations become suitable to each other (Bailey 2007, 544).

Castree (2008, 140) objects to McCarthy and Prudham (2004)'s argument that 'neoliberalism is intrinsically environmental'. For Castree, neoliberalising nature is the 'mismanagement of nonhuman world' via centering non-human world accompanied with some means such as enclosure, private ownership, and marketization of biophysical resources. Neoliberal environmental policies have some codes as 'growth/efficiency/development/democracy/sustainability'. The policies are privatizing and marketizing biophysical resource, defining standards for maximum environmental

outcome and minimum cost / social or economic development of marginal or low-income group with securing property right etc., roll-back state for more free environmental management, making conservation activities besides making profit (Castree 2010, 15-16). Thus, neoliberal environmental policies become strategies of capital accumulation, resulting in environmental bargaining and degrading with promoting of commodification of biophysical nature.

The relations between environmentalism and neoliberalism are also defined regarding historical process of neoliberalising nature. However, Castree (2010, 14) emphasizes that neoliberal ideas have not touched on biophysical world, resources or environmental issues. He presents the historical background of neoliberalizing nature in this alignment. Gordon (1954) and Hardin (1968) present earlier versions of neoliberalism. The former's idea came up as a solution for overfishing by privatization and marketization, and the latter presents a concept like "open access resources" (see Castree 2010, 14). After World War II, discussions on "environmental crisis" spread while natural resources were under the control of politicians. In this period, Keynesian state succeeded environmental protection with enhancing environmental laws and regulations, which were to prepare a base for neoliberal strategies (McCarthy and Prudham 2004, 278). Between the 1960s and 1970s, awareness about the environment and its limits spread on globally. In parallel, neoliberal programs appeared at global scale with the emergence of the global institutions such as IMF or World Bank (Bernstein 2002; Harwick and Peet 2003 see Castree 2010, 14). In the 1970s, "green neoliberalism" released in response to environmental concerns (Goldman 2005 see Castree 2010, 14). Bernstein (2002) assumes that neoliberalism and environmentalism started to be thought together in the 1980s. Alike, Castree (2010) argues that "green development", which commercialized unpriced or un-owned natural resources or areas especially in global South, coincides with the emergence of global conservation institutions in 1980s. Firstly, privatization and marketization were presented as the solution for sustaining or controlling the capital and sources. Then, global institutions and conservation emerged against to environmental concerns. In fact, a stage was created for using biophysical resources as a capital, a commercial good.

Under the name of neoliberal conservation, an environmental legislation, which creates new opportunities resulting in the increase of investments and ecological degradation, has been constituted for sustaining capital accumulation and solving

capitalism's environmental contradiction. Nevertheless, neoliberal conservation is seen as a response for environmental concerns despite paving the way of the use of biophysical areas and sources. These new capitalist activities and legislation relevant to them are named as "green-grabbing". For example, ecotourism or species banking, which are actually harmful activities for previously untouched ecological areas, are new opportunities for capital in guise of "save nature" (Apostolopoulou and Adams, 2014). Similarly, Holmes (2012) claims that the payment for ecosystem services such as ecotourism investments or water pollution stations in natural conservation areas are examples for "selling nature to save it". It is supported by conservationists, believing that this is the best choice to conserve nature in this neoliberal world. Therefore, neoliberal policies and conservation have been transformed into market mechanism for new capitalist activities via approving the use of conservation areas, biodiversity or natural resources (185-188). Apostolopoulou and Adams (2014, 16) conclude with a strong argument: conservation without any commercial purpose wouldn't be important.

With instrumentalization of "environmental concerns" on global scale, extensive social and economic regulations were created to overcome crisis of capital. International trade and deregulation of labor rights contributed to a compatible environment for capital. All practices occurred irregularly, and government had to constitute institutional frameworks, and to provide new areas for the circulation of capital. Therefore, capitalist activities began to extend to natural and conservation areas through reregulation and deregulation. So, limiting the labor wages and expanding capital have been achieved at global scale (Harvey 2005 see Neves and Igoe 2012, 166-167).

Castree (2010) poses three questions interrogatively about capitalism and its contradiction with the finite biophysical world, and states that neoliberalism is an "environmental" solution for this contradiction. Firstly, is social power deepening or widening with neoliberalizing nature? Secondly, can ecological contradictions of capital disappear with neoliberalism? Third, is neoliberal success to frame policies even against to support constituency?

2.3. Means of New Type Commodification of Nature

Neoliberalizing nature is put into practice by some means such as governance mechanisms and privatization implementations. In this chapter, these means are explained in two subtitles. Deregulations, reregulations and flanking mechanisms are included in 'governance'. Privatization, valuation, marketization and enclosure are explained as the means of the 'commodification of biophysical nature'

2.3.1. Governance (Deregulation, Reregulation, Flanking Mechanisms)

Governance is an important mechanism to control and support the operations of neoliberal practices. The concept "environmental governance" and some notions in literature such as deregulation or state roll-back, reregulation or market-friendly reregulation, and flanking mechanisms emerged (Apostolopoulou 2014, 18). "Neoliberal environmental governance" and its means try to conserve nature and resources, besides open the use of biophysical world for sustaining capital accumulation. This type of governance mechanisms brought along some regulations and legislations about the use of the environment. They culminated in "allowable natural destruction". (Apostolopoulou 2014, 18).

Extension of capital's limit and the need of new areas for circulation of capital entailed legislations about the management and control of the natural areas (natural resources, conservation areas, etc.) with environmental and neoliberal policies at different scales (global, national and local). According to Castree (2010), neoliberal environmental policies were revealed in the late 1970s. Then, in the mid-1980s, these policies moved to a spatiotemporal scale (Castree 2010, 5-6). In the early 1990s, national states, especially in global south, began to define cross-border areas for conservation, which were run privately (Büscher and Dressler, 2007 see Castree 2010, 21).

The state has restructured and rescaled with undertaking the role of guardian for capitalist class interests and nature, and transferring some authorities to local and international institutions (see Apostolopoulou 2014, 18). Through this direction, it promoted privatization and transition to market-based economy via cutting fiscal and

administrative resources, reducing services in some regions and creating more voluntary based, self-regulated, and more participatory management (Harvey 2003; Jessop 1994 see McCarthy and Prudham 2004, 276). Thus, privatization and marketization of residual services were supported via transferring the services to market proxies. Some residual sector activities began to be supplied by private actors.

Deregulations began to be implemented for reducing or removing the state intervention and creating a free and competitive environment for market. State has given some responsibility of controlling investments and protections to non-politic actors in the reregulated and deregulated legal framework. Castree (2010, 10-11) defines the new role of the State as: 'The state in its various forms becomes more a 'market manager' and less a 'provider' to the citizenry or to 'special interests' there in: it intervenes for the market economy, not, as it were, in it.' To this end, the state has withdrawn from some services for nature and public interest, and their function of prescription; therefore, it has taken the role of regulator for creating more free market. However, a safe environment for the market can't exist without any regulation of the state. That's why, regulation and reregulation about commodities previously not subjected to economy such as biophysical resources or public services began to be implemented for taking advantage for market (Çoban et al. 2015, 7, 8). State-controlled or hitherto protected natural areas or sources have become new fields for capital accumulation (Castree 2008 see also Rytteri and Puhakka 2012, 261). As the guardian role of government brought along a weak control for conditions of production, so was the environmental degradation promoted despite the conserving role of the state for nature (Foster 1992, see Apostolopoulou 2014, 18-19).

The self-governing or communal governing mechanism came into existence in parallel with the roll back state, providing more intervention into and enterprises in nature by deregulation (Apostolopoulou 2014, 19). Deregulation and reregulation mechanisms connected to privatization took place within a new governance model including different actors (public, private, national, local or international) and people (Apostolopoulou 2014, 19). And the quasi-state or civil actors named as flanking mechanisms, which are professional, voluntary or founded, emerged for controlling deregulated activities on nature (Castree 2010, 10-11). Besides the broad authorities and roles of non-political actors, some important regulatory functions were restricted even though the state have taken a regulatory position. For example, strategic planner's role in the decision-making

process was reduced, and the role of conservation of habitats or natural areas was transferred to voluntaries supported by the market actors (Castree 2010, 20).

The emergence of environmental conservation and acceptance of nature's limit coincided with the constitution of NGOs as the non-profit mechanisms for environment management at the global scale in the 1980s (Affolderbach, Clapp and Hayter 2012, 1393). NGOs began to collect donations, work with private sectors (firms, corporations), take positive attitudes about their activities, and help marketing (Affolderbach, Clapp and Hayter 2012, 1395; Holmes 2011, MacDonald 2010, 2011 see Holmes 2012, 188). State promotes some roles of philanthropists with the aim of "selling nature to save it" (Holmes 2012, 188). Funds and donations from firms were accepted for providing sustainability and conserving biodiversity (Affolderbach, Clapp and Hayter 2012, 1404). So, NGOs became instruments to ensure collaboration, competitiveness, sustainability and welfare (Affolderbach, Clapp and Hayter 2012, 1396) by carrying out some protocols, and environment friendly projects (eco-labeling, eco-taxes, certifications, agreements) such as Greenfreeze campaign by Greenpeace (Flakner 2008 see Affolderbach, Clapp and Hayter 2012, 1396).

The policies for sustaining 'environment' actually sustain capital accumulation. They have also been managed and arranged by global political or non-political institutions and instruments since in late 20th century such as Organization for Economic Cooperation, New Environmental Policy Instruments, Market Based Instruments, and some agreements among countries (see Bailey 2007, 530). The release of conservation areas at different scales is an example of these efforts of rearrangements associated with the rescaling of regional development, land uses and government (Affolderbach, Clapp and Hayter 2012, 1396). Kyoto Protocol and Convention on Climate Change exemplify global environmental policies. Most countries try to adapt and implement the policies such as national eco-taxes to achieve the target of emissions defined by the Kyoto protocol (Bailey 2007, 530).

In Turkey, despite its withdrawal from public services, deregulation and reregulation, the state was centralized by regulating the laws on natural areas, and authorities of local governments, municipalities or management units were declined. Recently, the authorization of approval, license and plan are given to the Ministry of Environment and Urbanization, and many authorizations of local government were

transferred to more central administrative units (Metropolitan municipalities, ministries or Presidency of the Republic) in Turkey (Çoban et al. 2015, 18). In addition, flanking mechanisms have not any authority to control natural areas in Turkey. There are generally objections of local institutions such as City Councils and local resistance to the impacts of neoliberal practices.

One of the most compelling examples of reregulation is arrangement about Environmental Assessment regulation. The time of the approval process has been reduced, exemptions have been increased, and participation of the process has been aggravated since 1993 (Çoban et al. 2015, 7). In 2014, the article, which conditions that "the investment should be evaluated with all cumulative effect", was canceled; and the investments started to be evaluated partially by taking only the effects of adding capacity into consideration. The decision stating that "the information meetings must happen in a central area" was removed (Çoban et al. 2015, 7). Some reregulations were done for the marketization of nature in Turkey. Seed Law (enacted in 8.11.2006) paved the way for commercialization of seed and created seed market; Biosafety Law (enacted in 26.03.2010) provided to involve GDO food in Turkey market with legislation about import and commercialization of GDO food and forage (Çoban et al. 2015, 8-9). As a more specific example about deregulation and local resistance, despite the 2004 decision of European Court of Human Right in Bergama and the reacts of society to Ovacık gold mine project, permission and licens, which are against to law and verdicts about stop operation, continue to run (Çoban 2010 see Çoban et al. 2015, 13).

2.3.2. Commodification of Biophysical Nature (Privatization, Valuation, Enclosure) and Accumulation by Dispossession

As Devine argues, 'all practices of capitalist accumulation entail practices of commodification, objectification, and commodity fetishism.' (2016, 642) Commodification is to make an economic good or service suitable for the market by standardizing and pricing them for selling (Bakker 2005, 544; Liverman 2004, Harvey 2005, O'Neil 2013, Pick and Tickell 2002 see Duffy 2008, 329). Commodification of nature has deepened and extended via neoliberalizing nature. The non-human phenomenon, to which over-accumulation is transferred through the expansion of capital

and transition to market-based system, has become the new fixed capital. According to McCarthy and Prudham (2004), neoliberalism is a phase of commodification of nature by state roll-back, extension of market-based management and regulation, and creation of public-private relations.

Biophysical phenomena have been included in capital accumulation process through privatization and marketization. Hence, neoliberal policies are “panoply” of sustainable capital accumulation, making non-human nature the new capitalist activity areas (Smith 2010 see Apostopoulou 2014; Castree 2008). Having been exposed to deep commodification at the global scale, nature is an “anchor” of capital now. As Smith (2010) argues, “over-exploitation of nature” happens rather than removing crisis of capital (see Apostopoulou 2014, 19). Consequently, biophysical world began to be commodified with a catastrophic way for the sake of capital accumulation. That “ecological commons” have been encompassed into the global capital accumulation resulted in environmental degradation and dispossession (Harvey 2005; Lattore, Farrell and Martinez-Alier 2015).

Explaining neoliberalizing nature, Castree (2010, 17-18) also clarifies how biophysical phenomena are included in capital accumulation practices as follows: property rights on natural resources are given to protect them; unowned biophysical world are included in capital accumulation practices via protection activities; and environmental goods previously non-owned, mispriced or unpriced are valued and commercialized for efficiency. Also, it is suggested that private sector should manage natural resources to increase efficiency and protection of environment by competition, and that the state should transfer its responsibility to non-political actors. However, the intervention of state is fundamental to use the biophysical areas. Instead of transferring its role in the management of nature, state promotes the use of biophysical nature with creating and regulating legal framework and giving property rights on the natural areas to private sector, and it withdraws from the public services. These arguments lead to some destructive results due to the use of biophysical world for the market at global scale (Castree 2010). Actually, the arguments are associated with the neoliberal policies as privatization, marketization, valuation, state-roll back and flanking mechanism.

Liberal or neoliberal authors defend that biophysical areas and resources should be privatized, and biophysical features which can't be privatized should be marketized in

order to protect nature (Keleş et al. 2012, Anderson and Leal 1996 see Çoban et al. 2015, 3). Thus, neoliberalizing nature also includes increasing private conservation and wildlife areas, researching and selling the genetic material, despite they are commons. In this direction, neoliberalizing nature and environmental politics are immanent to each other. As McCarthy and Prudham (2004) argue, neoliberalism is an environmental project (see Duffy 2008, 329). It can be said as they are concentric but the aim and results of neoliberalizing nature takes advantage for economic rather than ecological.

Marketization makes things, which are previously not the subject of the market logic, be valuable and commercial (Castree 2010, 10-11). Also, the marketization occurs mostly on previous privatized properties or on state owned properties (Bakker 2005, 544) because the selling the rights of owned properties or things are easier (Çoban et al. 2015, 5). Furthermore, Castree (2010) expresses that economic efficiency is gained by the development of private sector even though it led to social injustice and equity. However, economic sustainability can carry out if it is available for private property rights and market prices (29). Thus, privatization emerged as a neoliberal project to open public services, properties or goods for the use of private actors via creating new areas or activities for capital accumulation (Harvey 2005 see Apostopoulou 2014, 19). The property right of previously non-owned or communal owned areas or sources are legally transferred to the private sector by reregulation or deregulation (Castree 2010, 10-11). The use or property rights on state lands are given to private sector by allocating and leasing the rights. The properties, which have already use rights, are transferred to private entrepreneurs with changing rights by policy makers. Unowned lands, on which no one has previously any rights, are opened the use of private sector by defining new rights (Castree 2010, 18).

However, the growth of private sector regarding social inequity and justice not only occur with privatization of un-owned or unpriced areas or sources. It can occur by expropriation of private properties and communal owned properties, as Castree (2010) states. Marx explains this phenomenon with the concept, “primitive accumulation” that refers to extending the limits of capital into the properties previously not included in capital accumulation, and changing property relations on the properties. Harvey (2003) develops Marx’s concept as “accumulation by dispossession”. The concept is a reinterpretation of the term “primitive accumulation”, and it is an adapted version to the

current state of affairs (see McCarthy and Prudham 2004, 277; Mercile and Murphy 2017, 1042).

Accumulation by dispossession began to be an important characteristic of global capitalism in the 1980s and 1990s (see Mercile and Murphy 2017, 1043). Biophysical world and features like rivers, conservation areas, pastures or genes, which had not been included in capital accumulation process before, began to be absorbed into capital accumulation. Thus, the actual users of these areas such as peasants, civils or property owners have been devoid of their use or property rights on these areas because these rights were transferred to private investors (Çoban et al. 2015, 19-20). The process occurs in the same way as in the classic capitalism; capital accumulation is provided by utilizing labor named as self-reproducing system or expanded reproduction by Harvey. Accumulation by dispossession occurs just as primitive accumulation based on depriving of peasants from their own land and making them waged labors. However, the new type of accumulation has expanded to a wider area, and the properties of villagers began to be private lands of private investors (Mercile and Murphy 2017, 1042-1043).

Moreover, the dispossession not only is experienced by the local people. As biophysical sources, which are the commons of all, are included in global capital accumulation process, so does environmental degradation occur. As Harvey (2005, 39-40) argues, “dispossession, on the other hand, is fragmented and particular – a privatization here, an environmental degradation there, a financial crisis of indebtedness somewhere else. It is hard to oppose all of this specify and particularity without appeal to universal principles. Dispossession entails the loss of rights. Hence the turn of realistic rhetoric of human rights, dignity, sustainable ecological practices, environmental rights, and the like, as the basis for a unified oppositional politics.” Thus, environmental degradation leads to taking place of dispossession not only in local but at a large scale.

Turkey has experienced similar neoliberal practices and accumulation by dispossession process. Çoban et al. (2015, 6) point out how the public lands, state lands, pastures, forests, coasts etc. in Turkey were subjected to accumulation. Investments, which are more destructive for nature such as industrial agriculture, tourism, construction and energy, have been contributed the capital accumulation, based on the natural areas from 1980 through 2000s. The situation has become more harmful and denser thanks to deregulation and reregulation in the laws relevant to natural areas, their management and

their marketization and privatization after 2000s. As a current question about transferring property rights and accumulation by dispossession in Turkey, how the property or use rights of the common areas previously used by peasants change after the 6360 legislation in 2013. It is decided that authorities of villages were transferred to the metropolitan municipalities in metropolitan cities, and the villages were classified as neighborhoods. It means removing the term and category of village, and abolishing the Village Law (no. 442) and including previously communal village lands and natural areas in the metropolitan boundaries.

2.4. New Fixes (Environmental, Ecological, Eco-Scalar)

The emergence of new concepts such as “ecological fix” (Bakker 2005), “environmental fixes” (Castree 2008) and “eco-scalar” fix (Bakker and Cohen 2014) came into existence with becoming nature an ‘anchor’ for capital and, changing limit and shape of commodification of nature through neoliberal policies. These concepts are different forms of Harvey’s (1985) concept, “spatial fix”. The motion and circulation of the capital occur on fixed places as built environment like roads, communication lines, social and physical infrastructures (Harvey 2001, 25). According to Harvey (1982;1985), the crises realize at different scales and in different places and, capital can change the shape and place temporarily for overcoming the crises (Bakker and Cohen 2014; 131). Thus, capital try to extend its limits, its relative spatial fixes and geographical boundaries. In other words, as Marx (1973) writes, it desires “annihilate space through time” (Brenner 1998, 462). In the neoliberal phase, the boundaries have extended through natural areas, and biophysical world has become new fixed places for capital.

Against to the crisis, ‘capital circulation is successively territorialized, deterritorialized and reterritorialized’ with their organizations (Brenner 1998, 469). To get rid of over-accumulation crises, territorialization has restructured and rescaled, a process that culminates in reterritorialization (Brenner 1998, 462). Capital is not only dependent on place but also relative with scales. Lefebvre (1991) introduces scale as ‘historically contingent, politically contested and socially constructed’ (Neuman 2009, 399). The restructuring and rescaling process has occurred to all boundaries not only to geographical but also administrative and economic ones. The interaction and relationship between

human and nature, as Blakie and Brokfied (1987) argue, occur with the ‘contribution of different geography and hierarchy of socioeconomic organizations’ specified physically and socially at different scales (see Neuman 2009, 398).

Having drawn from Lefebvre’s theorization of scale and Harvey’s concept of time-space compression, Brenner (1998) conceptualizes “scalar fix” to clarify deterritorialization between fixed and dynamic capital (Brenner 1998, 462 – 463; Bakker and Cohen 2014, 131). Three spatial restructuring periods, being also scalar fixes, the last of which is “denationalization”, appeared (Brenner 1998, 462 – 463; Bakker and Cohen 2014, 131). International institutions, local governments, and non-state actors are the components of governance revealed in the rescaling process. Different levels of rescaling occur in the globalization practices. The higher level is global institutions, and more local level is municipalities, non-political and non-state actors. Thus, denationalization transferred some authorities and roles to these actors. Rescaling, on the one hand, realizes physically, and networks and hierarchy of power change due to new spaces and institutions, on the other (see Baker and Cohen 2014, 129-130).

The scales such as cities and territorial states are fixes for capital. They have been shaped by the changing limits and flexibility of the circulation of capital since late 19th century. New scale emerged as global scale provided by multi-dimension rescaling for the circulation of capital. It follows that a new fix as “glocal scalar fixes” appeared including both city scale and international scale (Brenner 1998, 462-463). McCarthy and Prudham (2004) argue that the new type of glocal scale has interactive relations as “scale specific dynamics” with new institutions, cultural and political practices (279).

The extension of capital’s circulation and constitution of networks at global scale brought along necessity of new places to transfer over-accumulation of capital (Arrighi 2006; Fletcher and Neves 2012; Harvey 2001 see Devine 2016, 638), and to resolve the crisis with displacement. Consequently, “the fixed places” have been extended through biophysical world with marketization and privatization of previously non-commodified resources and natural areas. The motion of capital emerged on new scales to create new boundaries with new institutions, new power relations and networks. Sayre (2005) argues that ecology can be an answer for scale problems, and the scale and the ecological processes are integral to each other (see Neuman 2009, 400).

Bakker (2004) theorizes ‘ecological fix’ referring to environmental externalities, conditions and outcomes for capital accumulation (see Bakker and Cohen 2014, 131). Besides, Castree (2008) presents four types of ‘environmental fixes’, structured on the basis of regulations. First one is ‘free market environmentalism’ which includes the mechanisms such as privatization, marketization and roll-back state to ease managing and conserving biophysical world by private actors. Second one is marketizing hitherto protected or controlled areas, commodifying them, and supplying new areas for capital accumulation by state. Third one is allowance degrading these protected areas to make profit with extending private rights on them. The last one is putting forward civil-society or personal responsibility rather than state responsibility on environment and capital via deregulations and minimal legislations (Castree 2008, 146-147).

Bakker (2009) critiques Castree’s concept of “environmental fix”, since it excepts socio-environmental conditions in contrast to ecological fixes, focused on the social and ecological relations (see Bakker and Cohen 2014, 132). However, the concept of neither environmental fix nor ecological fix refers to spatial dimension like Harvey’s concept of “spatial fix”. Instead of them, Bakker and Cohen (2014,132) develop the concept of “eco-scalar fix”. The concept includes naturalized boundaries as different from the “spatial fix”. The boundaries of nature defined by governments such as watershed, or migration routes as ecosystem boundaries are substituted to jurisdictional boundaries (Bakker and Cohen 2014, 134;139). In such a way, spatial scales alter, and are reorganized together with jurisdictional boundaries and institutions or actors. Even though eco-scalar fixes seem to be depoliticized, they refer to capitalist accumulation, solving the crises, and changing political relations with changing scales. Actually, it is repoliticized due to the process of the reorganization of politic relations (Bakker and Cohen 2014, 139). Eco-scalar fix is a strategy to strive for overcoming crises, and to avoid environmental degrading, both of which are accompanied with uneven labor supply. In fact, this strategy sustains crisis and environmental degrading.

“Scale” and “rescaling” processes are elaborated on regarding their environmental dimensions. Zimmer and Basset (2003) define four points to understand the ways in which scales are ecologically and socially constructed, and to clarify resultant incompatible environmental geographies and their interactions. These are; ‘(1) the scales of ecological dynamics; (2) functions of conservation areas; (3) mismatches between ecological and social scales; and (4) fragmented scales’ (Zimmer and Basset 2003, see

Baker and Cohen 2014, 142). Zeuman (2009) emphasizes the need for inquiring into scale by taking into consideration the following aspects: '(1) the interactions of power, agency, and scale; (2) socio-ecological processes and scaling; and (3) scaled networks.' (403). Bakker and Cohen's concept of eco scalar fix and their studies fulfill this requirement.

Bakker and Cohen (2014) conducted a research on "eco-scalar fix" in Alberta, Canada. In this work, watershed units based on hydrological feature and land use units as examples of eco scalar fixes were assessed with their environmental governance rescaling and reterritorialization process. Thirteen provinces in Canada shifted to watershed - based planning model and all provinces were responsible for their own watershed unit until 2001. Also plans were prepared by the Watershed Planning and Advisory Councils (WPCAs), a non-profit organization, composed of government representatives, interest groups, conservation groups etc. Also, the people having environmental concerns about plans can join in WPCAs. In 2009, the boundaries were shifted from land use planning units to watershed units. Regional Advisory Council (RCAs) started to be responsible for land-use planning units and plans of watershed units, and WPCAs started to assist analysis, reports, strategies etc. none of which had binding power. The plans made by RCAs focused on economic concerns, rather than conservation. Nonetheless, WPCAs had no longer the authority for implementing the strategies, plans or other workings. This is the answer for how rescaling process impacts and reorganizes power relations.

The findings of Bakker and Cohen's research show that Alberta's land use has dramatically changed and environmental degrading such as increasing oil sands has increased due to the incentives for economic growth. The economic boom based on increasing oil reserves led to increase in population and uneven labor supply. Rather than solving the crisis, rescaling led to environmental degrading and uneven growth of labor supply. The results indicate that i) eco-scalar fixes are not a solution for the crises; and, ii) natural boundaries are depoliticized, but they are political especially regarding that power relations are reorganized through eco-scalar fixes. The latter is exemplified by the fact that as WPCAs' authorities are limited, RCAs start to make plans in ecological boundaries. Thanks to eco-scalar fixes, instead of overcoming the crisis or of providing environmental conservation, the crisis was displaced (Bakker and Cohen 2014, 140-142).

2.5. Commodification of Natural Areas

Regarding how natural areas are absorbed in capital accumulation, and how accumulation by dispossession occurs with neoliberal policies and practices, “actually existing neoliberalism” varies according to geographical, historical, social and cultural contexts. The natural resources and their potential also contribute to these variations of existing neoliberalisms. Neoliberal activities, their mechanisms, policies, processes and impacts occur with different dynamics of rescaling, governance mechanisms, institutions and power relations. However, neoliberal policies pose some generalized features, and create main common impacts. It is observed over the world that the biophysical world is exposed to environmental degrading at different levels, and the local people are dispossessed for the sake of capital accumulation.

Different cases show how nature as well as culture is intensely commodified in different geographies. “Wilder” and untouched geographies have been invaded by biodiversity conservation, natural-based or culture-based conservation activities. Besides, such geographies are desired for alternative tourism activities like exotic tours, safari, tribe tourism and eco-tourism. Thanks to their local cultures, biodiversity, wilderness and untouched natural sources, Latin America and Africa are mostly attractive points. Mostly Europe or other countries being far from the “wildness” experience either eco-tourism or mass tourism activities. On the other hand, various geographies with exotic food, fish, or other food production are subjected to agrarian capitalism and integrated to global production. The uses of natural resources for such activities as mineral extraction, mining, renewable and non-renewable energy production etc. differentiate due to geographical context. Furthermore, eco-system and conservation services can add the list as newer activities to sell nature and its conservation.

Lattore, Farrel and Martinez-Alier (2015) investigated 64 activities, which commodified biophysical features in Ecuador, and their resilience between 1980 and 2013 in neoliberal period and post neoliberal period. In Ecuador, commodification of natural sources occurs by various activities such as energy infrastructure, industrial agriculture, mineral extraction, tourism, basic service provision etc. However, it is observed that infrastructure and mineral extraction projects have increased in post-neoliberal period, after 2007. The projects are more resilient than agri-food projects ended in neoliberal

period. The market-led biodiversity conservation, luxury goods, golds, shrimp production have increased in post-neoliberal period. In addition, the commodification of natural sources by the post neoliberal activities led to displacement of local people, blocking the access of local people to natural resources, and damaging living environment. In conclude, accumulation by dispossession happened in both periods but the practices gradually increased and became intensified.

Tourism activities and also their alternative forms aim to commodify culture, identity, biodiversity and landscape. Ecotourism is a way to make conservation areas parts of global economy (Devine 2016, 634-635). Despite that ecotourism as an alternative form of mass tourism can serve to conserve and sell nature as a commodity in “environmentally way” (Bianchi 2004 see Duffy 2008, 327-330), it can never prevent dispossession of local people. Aside from being deprived of their use rights on natural areas and biophysical sources, local people also lose their lands due to commodification of under-developed regions and green spaces. So, alternative tourism practices are articulated to enclosure, land dispossession, and uneven development (Duffy 2013; Ojeda 2012; Smith 2010 see Devine 2016, 638).

Duffy (2008) shows that conservation areas and visitors increased in parallel to each other in one decade between 1990 and 2000 in Madagascar. Madagascar’s biodiversity and culture have been commercialized as an eco-destination by ecotourism supports. Global institutions like Wildlife Conservation Society and World Wildlife Fund provided conservation funding. Also, World Bank funded the area, and promoted to create an environmental management policy framework to marketize the areas through nature-based and cultural tourism strategies.

Similarly, Maya Biosphere Reserve Area in Mirador site and forests in Guatemala have been encompassed by alternative tourism activities like ecotourism and soldierly tourism. As private sector funded the area, UNESCO announced it as world heritage site. The areas in Mirador basin were announced as natural parks and archeological sites because they symbolize Maya Biosphere. Simultaneously, Mayan culture is commodified through cultural tourism based on semi-collective and collective projects and activities for learning guerilla life and camping in Mayan forests. Moreover, the beaches were enclosed and privatized for tourists, and the local people were evicted from Maya

biosphere area, with a view to let global tourists use the area safely (Devine 2016, 638-647).

In the European examples, commodification of nature brings about less severe impacts than Latin America. In Finland, for example, national parks doubled in the 1990s and 2000s, and nature based tourism development increased in the same period for regional economic development. Following deregulation and reregulation, national parks were privatized partially with the commercial activities and hotels. Even the law in 1996 prohibits the construction in national parks in Finland, hotels were built there. Although the area was also included in Natura 2000 site (an international conservation network), it was privatized in 1998. Then, the Environment Committee of Parliament brought new hotel proposal and extension alternatives in 2004. The government announced to fund the extension of hotel (Ryterri and Puhakka 2012, 255-262).

In Turkey, however it is a newer experience than culture-base or wild tourism, eco-tourism began to appear. While eco-system and private conservation practices are not common, industrial agriculture, mineral extinction, energy infrastructures, tourism investments in natural areas began with neoliberal period. They have increased after the 2000s mostly through privatization, deregulation, and regulation. Such activities have been carried out in the natural areas and protection areas by allocation of Treasury lands or communally owned lands, and expropriation of the private lands. It follows that common lands and natural resources are enclosed, and accumulation by dispossession occurs.

Privatization of Iztuzu Beach in Special Environmental Protection Region in Muğla is an example for commodification of protection areas in Turkey. The operation right of the beach belongs to a private company having an English partner (Çoban et al 2015, 3). The beach was enclosed for public uses, and the conservation areas were included in global economy via its international links and tourism activities. Another example is in Antalya, Olympos National Parks. Following the enactment of the Tourism Incentive law (no.2634), the boundaries of the National Parks were narrowed down to almost half in 1998 since tourism development was made possible at coastal by plan revisions. Moreover, forests and agricultural lands were transformed into mass tourism and settlement areas. The lands were allocated for gulf facilities, camping facilities, and establishment of excursions besides mass tourism activities such as luxury hotels, holiday

resorts and yacht ports, all of which result in severe ecological degradation and the removal of traditional uses of local people in these areas (Atik, Altan and Artar, 2006).

Agrarian capitalism practices in conservation areas also closely connected to commodification of nature. Münster and Münster (2012) assessed the impacts of agrarian capitalism in Wayanad, India. Before agrarian activities, forest conservation had increased and two types of forest were created legally as reserve forests and private forests in Wayanad, India. Then, the crops such as ginger, pepper, coffee, palm trees began to be cultivated in the private forests. On the one hand the agrarian activities were integrated to global economy, and they created negative ecological impacts on soil and puddles, on the other. Over cultivation and production caused over chemicalization in wetlands. Furthermore, farmers in the area had to sell their lands under the pressure either of the crisis or of increased real estate costs related to tourism development. Hence, the local agricultural production ceased, and the local people were dispossessed when the global scale production increased in private forests of Wayanad.

Eco-system services appeared as another alternative sector that also sustains environmental externalities in order to commodify them. Chan et al. (2006) investigated six eco-system services and their locations. They evaluated the relations between biodiversity attractions and eco-system services. Their findings show that ecosystem services and biodiversity points are not correlated except from the services focused on agriculture such as crop pollination and forage production. For example, the specified hot spots for conservation were defined as low correlated to biodiversity attractions. There is the spatial mismatch to supply and demand for eco-system services (Chan et al 2006, 2138-2150).

Similarly, Norris (2017) mention that eco-system services as “private conservation” and re-forestation have occurred in parallel to extraction of mining in conservation areas in Peru. Enclosure of conservation areas for fuels began in 1980. However, against to the tension between conservationists and indigenous people, conservation policy was shifted to natural or community based resource management. After 2000s, both the mining and conservation areas have increased sharply. Private conservation areas were created on legal basis, and these areas were enclosed, as well. 30% of the private conservation areas and extraction mining areas overlap. Norris (2017) argues that conservation in Peru appears as a means for creating private properties and

commodification of nature through the activities such as non-renewable and renewable energy production, tourism, and specifically, ecotourism.

The increase in conservation areas, EU funded projects about 'green products' and tourism investments in Greece was searched by Apostolopoulou and Adams (2014). The authors state that the development of projects and privatization of natural assets have increased by deregulation. One of the examples is the approval of a Canadian gold mine operation and its extension in public forests which are also in Nature 2000 sites. Despite such the ecological impacts of the projects as pollution of water sources and soil, and the sociological impacts such as disappearance of traditional agriculture, livestock and fishing, the environmental assessment report approved gold mining. The mechanisms and policies which lead to neoliberal practices and their impacts are similar with Turkey's practices.

The mineral extraction activities are carried out with severe impacts on nature in Turkey, like the examples all around the world. As being different, the operations do not continue together with conservation practices. Rather, they run in natural areas. In neoliberal period, new regulations and revisions in laws such as the Mining Law, the Pasture law pave the way for the activities with extended private rights. Environmental concerns are limited to environmental assessment reports, and the reports are mostly approved, based on some amelioration measures such as ecological restoration. Being similar with examples in the world, the mining companies (especially gold mining companies) are not national or constituted by international cooperation (generally Canadian, American and Australian). In Ovacık village, Bergama, a gold mine was opened and operated by Eurogold, which is an extension company of a Canada-France partnership. Then the facilities were transferred to a national firm. The establishment of companies began with the reregulation of Mining law in 1985, which paves the way of foreign mining activities. The lands of peasants were bought or expropriated. If the peasants did not want to sell their own lands, then lands were expropriated. During the search and extraction, appeared some environmental risks such as pollution of the agricultural irrigation waters or daily consumption waters. However, environmental assessment reports gave positive decisions for the mining activities. Almost whole villagers moved out of the village because of the high prices for lands or expropriation (Arsel, 2005). Same practices happened in Efemçukuru, İzmir; the villagers sold their lands to a foreign gold mining company, Elroda, and moved from their village. Also, their

vineyards, which were main sources of living were harmed (Özen and Özen, 2014). Çöpler village in Erzincan exemplifies the same process. By the sponsorship of an ABD, Canada corporation, Anagold company, all lands of the village were expropriated, and the village were moved out of the old settlement. Except from village settlement, whole project area is placed in the pastures, forests, and agriculture areas which are state-owned. All of the lands were allocated to the company, in return for some costs such as forestation (Çağatay and Aliefendioğlu, 2019).

“Green” investments in wind power and solar energy classified as “clean” energy in Turkey as well as all around the world, are located in the areas which has natural characteristic. Such investments are carried out in similar ways in Mexico, India or Turkey. The state owned or Treasury lands used by local people for earning their livings are allocated to companies for energy investments. The wind power investments began with the privatization of energy sector and reregulation of the laws for allocation of society lands for the energy investments. In Mexico, Isthmus of Tehuantepec was defined as wind corridor in a Kyoto Protocol project in 2006. In the project, there were 15 wind farm projects which are operated by multinational companies. State announced private-public initiatives for extending infrastructures and transmissions between wind farms at national scale. The energy produced by wind farms is used for self-consumption of companies for mining, food beverage production, cement manufacturing etc., or is to be sold to the state. The local resistance and lawsuit processes began after 2006. For the sake of capital, the lands registered as social property and coasts used for agrarian production by indigenous people or villagers were allocated, leased or sold by the state. The properties are social properties, and the allocation or selling were made possible by deregulation practices. Thus, the local economy disappeared, and local people were dispossessed (Avila, 2017). Similarly, the common lands, which were unregistered grazing or agricultural lands, were privatized for mega solar energy park in Gujarat, India. In 2006, the use right of forests and grazings was given to local people. However, in 2010, the first solar farms began to be constructed in the common lands defined as “waste land” by the government. In this way, projects and enclosure of common lands began to increase. Like local people in Mexico, the villagers in India have been dispossessed because the livelihood assets have been taken from them (Yennetti, Day and Glaubchikov 2016).

Similar negative impacts can be observed in Yırca, Manisa, Turkey. The fossil fuel plant was constructed by a private company in the olive groves of peasants, despite that they are under protection with the law. Besides deregulation, urgent expropriation was implemented in the investment area. The area was enclosed, and the olive trees were removed in 2014. The local people are evicted from their lands, and thus dispossessed (Çoban et al 2015, 13). Also, energy investments in natural areas such as wind power plants and hydrological power plant were approved under the name of “green energy” in Turkey. Besides allocation of the State lands, urgent expropriation and expropriation of private lands for the investments were implemented in villages. In 2005, it was decided to expropriate private lands in Ermenek, Karaman for the construction of hydroelectrical power plant and dam. The hydroelectrical power plant has been under operation since 2012. Almost all peasants moved from their villages. Also, their agricultural lands are allocated, or submerged. They tried to continue their agricultural activities on residual lands but most of villagers are unemployed or can’t continue the agricultural activities (Koçyiğit and Emiroğlu, 2016). In Aegean cities and provinces like Izmir (especially Seferihisar, Urla, Çeşme) and Manisa, wind plants have been proposed and constructed in forests, agriculture lands and pastures by allocation of common lands and expropriation of private lands. The local people generally don’t react to mining activities because they can sell their lands at higher prices, and they have an expectation to get higher waged jobs (Özen and Özen, 2014). Reactions mostly come from environmentalists. On the other hand, the villagers living where energy investments are put into practice with expropriation react because they are dispossessed of their lands at insignificant prices, and their common lands were harmed or privatized.

CHAPTER 3

NEOLIBERALIZING NATURE AND NATURAL CONSERVATION IN TURKEY

3.1. Neoliberalizing Nature in Turkey

In Turkey, the neoliberalisation began in 1980 with 24th January decisions, defined a shift in economy from inward-oriented industrialization model to the global liberal economy. The first stage of neoliberalisation is called as “Özal Period”, because he stated that Washington consensus was inevitable to overcome economic challenges. The 24th January decisions aimed to restrict public investments, increase privatization, and release the circulation of capital and foreign trade activities. These programs cut financial supports except from energy, transportation and fertilizer, and paved the way of foreign trade and investments (Harris and Işlar 2014, 53-54; Sönmez 2009, 27). Also, the business enterprises and foreign investments were supported by some policies. The quota of import activities was reduced; interest rates were released; and, internal market was deregulated between 1981 and 1983. Some tax discounts were applied for business entrepreneurs and high-income groups, and privatization agencies were established between 1984 and 1988 (Boratav, Türel and Yeldan 1996, 374).

The government has undertaken regulatory and promoting role to develop the private sector rather than rolled-back, as well (see Harris and Işlar 2014, 52). Privatization was put into practice in 1984 initially, and Privatization Main Plan was prepared by the State Planning Organisation (SPO) under the influences of international finance institutions. Plans of SPO aimed to increase foreign investments, and supported the capital market and private investments through privatization of public business enterprises (Öniş 1991, 166). These plans, reforms and regulations were imposed by IMF, World Bank and OECD, and named as stabilization programs and structural adjustment programs. In that year, Environment Law (no. 2872) was enacted with an aim of adaption to the international contracts. However, its implementation was stopped, because the law

brought decisions cutting down some economic activities, which supported development (Şengül 2008, 74).

Indeed, so called stabilization programs and structural adjustment programs resulted in a significant increase in income variation and inequalities between the welfare of the different social classes. As the entrepreneurs rose their life quality and riches, the purchasing power of the remaining parts of the society decreased, and unemployment among them run rampant. The sectoral profits were released at the expense of the rights and interest of the labor class, having already fallen down by privatization and limitations of the public services. Moreover, Turkey's external debt reached to 40 billion dollars in 1989 from 13.5 billion dollars in 1980 (Zürcher 2005, 425-431).

In 1989, financial liberalization and deregulation on foreign trades were introduced in order to increase capital inflow (Boratav, Yeldan and Köse 1999, 5-6). By the beginning of the 1990s, foreign capital increased, but the free market brought along a debt for private and public sectors. In line with these changes, the power of the SPO was decreased by transferring some authorizations to the Under Secretariat of Treasury in 1991 (Öniş and Webb 1992, 21-22). In 1994, following the crisis Turkey faced as a result of the uncontrolled free market (Sönmez 2009), deregulation, decreasing public investments, regulating social, economic and political areas have continued to be applied. These implementations and regulations led to the economic meltdown in November 2000 and February 2001. Thus, in 2000, some additional contracts were made with IMF, and macroeconomic politics were defined according to the relations to IMF or international institutions. Through some regulations in line with such contracts, some energy and transportation institutions like TEDAŞ, POAŞ, THY, ERDEMİR and TURK TELEKOM were privatized (Ozkan 2005, 542; Angın and Bedirhanoğlu 2012, 139-140).

Erensü (2017) defines neoliberalization in Turkey in following order; the period of the continuous effort to liberalize sectors in a quarter of 1980s; setting a legal framework for passing over economic and bureaucratic challenges in 1990s; and, final implementations of the policies about new type of liberalization 2000s (124). In this process, the 1994, 1998, 2000/2001 crises were the promoter factors leading to intensified neoliberal policies (Harris and Işlar 2014, 71).

Following the 2001 crisis, on the one hand, a more institutionalized and rational economic governance system was established, and a decentralization process began with

extending the scales of local municipalities and management, on the other. In search of economic growth, the government began to support construction sector. Urban renewal projects were extensively supported and carried out by state institutions (like TOKI) and state-owned banks. Moreover, new laws, regulations and reregulations about urban renewal were enacted by the Justice and Development Party (AKP) (Kuyucu 2017; Türem 2017, 34). Some of them are “Law for the Reuse of Timeworn Historical and Cultural Property with Restoration and Protection” (no. 5366; 2005) which supports the renewal of historical areas through public private partnerships; the 5398 numbered law (enacted in 03.07.2005) which is a reregulation about privatization and the use of coasts for port facilities and their tourism facilities. On the other hand, the law on “Duties of Development Agencies” (no. 5449; 2006) and “Local Municipality” laws (no.5393; 2005) were promoting the process of decentralization and extending the authorities of local governments. These laws are only few examples in creating or changing legislations especially on natural areas, by the 2000s.

As Kuyucu (2017) states, this “decentralization” process is a step for “centralization” process in Turkey after the crisis in 2008. The establishment of development agencies is only one example for rescaling through centralization process in Turkey. The development agencies were authorized and financial sources were given to the agencies in order to provide the use of resources efficiently, develop regions and provide coordination between private-public sector and society.

Between 1985 and 2002, the amount of private sector investments was 8 billion dollars; it increased between 2003 and 2011, and reached to 33 billion dollars. After the 2001 crisis, an economic growth appeared with an increase in GNP between 2002 and 2006. As unemployment became a major problem for Turkey, GDP growth rate decreased in 2006. The rate has increased 1,5% annually after 2006, and it arrived to 14% in 2009. The deepening of neoliberal policies resulted in the statistics similar to the period of 1980 to 1989. This period is also considered as the construction period for neoliberal policies in Turkey (Kuyucu 2017, 52; Sönmez 2010, 80-86).

In that period, tax discounts and supportive policies were only applied for foreign investments and privatization of the investments. Özgül (2017) argues that indirect taxes paid by the members of society increased from 37,2% to 73% between 1980 to 2005. Direct taxes which are payments for capital decreased in parallel rate. Besides, the

Agricultural Reform and Implementation Project led to privatization of cooperatives and market, and cutting the prices of subsidies. Therefore, many peasants or producers could not achieve continuing their activities (İslamoğlu 2017, 79).

The regulations of the laws and their implementations directed towards neoliberalizing nature in Turkey have followed general policies and practices of the neoliberal economy. These laws are mainly about privatization of energy, water, and natural areas which are unowned, state-owned or communally owned. The implementations, reregulations and deregulations for releasing private energy sector exemplify privatizations with accompanying accumulation by dispossession processes.

In 1984, the “Assignment of Institutions except Turkey Electricity Administration for Electricity Production, Distribution and Trade Law” (no. 3096) was enacted as the first initiative for privatization of energy sector. The law presented a legal framework to construct and operate power plants by private sector, or again by private sector but based on build-operate-transfer mechanism. The legal framework was not sufficient to create powerful and competitive energy market even some regulations were done to facilitate the private sector enterprises. In 2001, the “Electricity Law” (no. 4628) was enacted. It stipulated to establish an institution as the responsible authority for totally newly created energy market by privatizing public assets and creating free environment for industry. In response to land demand of the increasing energy investments, as this law was supported with different policies, reregulations and also deregulations, so was the “Expropriation law” (no.2942), which had previously been announced to be used only under war condition from 1940 to early 2000s, deregulated after 2000. Thus, such regulations still continue for meeting the demands of the newly revealed private sectors (Erensü 2017, 125-127). Erensü (2017) shows that ‘there had been only six urgent expropriation (UE) cases in the 1980s and four in the 1990s’ (127). However, UE decisions unprecedentedly increased under the AKP government. During the second half of the 2000s, the number of decisions reached to 104. ‘The decade between 2004 and 2014 witnessed a total of 1,785 UE decisions; some 1,500 of them were directly related to energy production’ (127). Increasing urgent expropriation decisions after 2002 in support of energy production activities reveal how the government over-zealously supports capital accumulation, even though it means exploitation of private properties.

3.2. Natural Conservation and Changing Regulations and Policies for Natural Areas

The transition to neoliberal economy and articulation to the global capital accumulation system entailed creating legal framework for natural and conservation areas. Most contracts and institutions emerged at international scale especially for conservation of biodiversity such as the Convention on Wetlands of International Importance, the Paris Climate Convention, the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention), the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) (Topçu, 2012). Thus, the necessity of the adaptation to international dynamics and contracts brought along the enactment of Protection of Cultural and Natural Properties law (no. 2863) in 1983 by the support of the 60th article of the 1982 Constitution. This article stipulates that the protection of natural or cultural areas or properties and the role of defining constraints for rights of private properties in the areas are duties of the state. In this direction, the legal framework and codes about the protection areas, their plans and use restrictions were constituted by the Protection of Cultural and Natural Properties law (No. 2863). In 1983 National Parks law (no. 2873) and in 1989 delegated legislation about Establishment of Institutions for the Authorization of Special Environment Protection areas (no. 638) were enacted (Dağıstan Özdemir 2005, 23-24). Following that the use of conservation areas was legally delineated, the institutions and the laws about protection areas were reregulated. Also, new laws and regulations for natural and conservation areas have continued to be enacted.

After 2000s, laws were regulated and institutions were restructured over and over for privatization and reregulation. The increase in regulations and amendments in laws is shown by years in a table (Appendix A). Also, Çoban et al. (2015, 6) summarizes the reregulated laws regarding natural areas such as the Forest Law (no. 6831), the Preservation of Cultural and Natural Properties Law (no. 2863), the National Parks Law (no. 2873), the Pastures Law (no.4342), the Coastal law (no.3621), the Mining Law (no.3213), the Soil Protection and Land Use Law (no. 5403), the Tourism Incentive Law (no.2643), the Use of Renewable Energy Resources to Generate Electrical Energy Law

(no.5346) and so on. Most regulations for natural areas such as olive groves and pastures brought about crucial consequences violating either ecological integrity and rural economy.

Firstly, tourism investments began to be supported by the enactment of Tourism Incentive Law (no. 2634) in 1982. Tourism regions, and tourism centers terms were defined by the law. Treasury lands and the lands under the disposal and decree of the state (*cebel arazi*, in Turkish; “state lands” hereafter) began to be allocated for tourism investments in tourism regions, based on the condition of “public interest”. The law was reregulated in a way of extending to culture and tourism conservation and development regions, and sub-regions in 2003. In 2006, marine tourism and classification of tourism definitions were also included in the law. Moreover, allocation of the state lands and expropriation of the private properties were approved for tourism conservation and development regions located in the plans with the 2003 amendment. With the 2008 amendment, allocation of the forestlands with biodiversity or other features, which are beneficial for tourism investments, were made possible for thermal and health facilities, cruise tourism, ecotourism, golf activities, international sport facilities, on the condition that Treasury lands are insufficient. The investments in cultural and tourism regions are exempted from location survey but environmental assessment report for the investments is a requirement. Besides, the amendment decrees that if there is a decision that environmental assessment is unnecessary for the investment, the approval process must be completed in two weeks. Thus, alternative tourism activities have been supported and their procedures have been eased by the reregulations.

Some regulations related to tourism development were done in the Coastal law (no. 3621) enacted in 1990. The law prohibits construction or facilities in coastal areas, and it stipulates that the coast must be open for only public use. However, 2003 and 2005 amendments defined the construction conditions for cruises and marinas in coastal bands and fill areas within privatization programs. And the conditions for the definition of coastal line’s boundaries were changed. Thus, with the 2005 amendments, the coastal areas were opened for the constructions of cruise tourism activities, their necessary infrastructures, and their commercial and service units. In 2008, the areas were opened for sport facilities and their accommodation facilities which are compulsory for international sport activities. In 2017, a partial change enacted that health facilities and industrial zones can be constructed in Trabzon, Rize and Zonguldak if there was not any

alternative. In 2018, the seas were included in regulation plans and the investment of sustainable energy in the areas defined as sustainable energy zones.

Another legal support was provided to increase mining in natural areas. Mining law (no. 6831) has already widen rights since it was enacted in 1985. The law brings no limitations about the mining search and operation in natural areas but sheer technical limitations on types of mining and drill techniques etc. However, it is an obligation that proposals of mining search and operation must be assessed by taking into consideration the associated laws such as forest law, pasture law, etc. With the amendment in 2010, it made possible to run mining activities on wild life conservation and development areas on the condition that environmental assessment report renders positive decision. The 2010 amendment defines mining and quarry search projects, pre-search activity report, pre-assessment and different kind of reports, and determines construction conditions. By the amendment in 2014, the areas such as first-degree natural areas, military areas, special conservation areas, national parks, and wild life conservation areas were opened for electricity energy generation, oil and natural gas search, organized industry and mining activities. It was stated that the permission of quarry project process can be given by taking into consideration the Forest Law. Mining activities (included quarries) in the municipality boundaries and zoning areas had been approved by Municipalities previously. The authorities on the approvals and limitations of many mining activities and use rights were transferred to Ministry of Energy and Natural Resources in national park areas, land hunting areas, natural parks, conservation areas, pastures, agricultural areas by the 2014 amendment.

Moreover, industrial agricultural activities began to be supported by Forestation regulation enacted in 1987. The Treasury lands which are included in 1- 4 classification of fertility could not be leased for forestation with the trees growing fast or with woody trees such as walnut, redwood, olive trees until the 1994 amendment. With the amendment in 2004, the decision was continued under the name of private forestation by allocation of land in non-forest areas excepting those included in forestation plans. In 2009, private forestation was allowed in special environmental protection regions and national parks provided that Ministries approved. Private forestation was prohibited in archeological and natural site zones, culture and tourism development sites, wild life areas, grazing lands defined in plan, hunting grounds, quarry areas, and the roads of highlands or winter quarters by 2012 amendment.

On the other side, Aquaculture Production law (no. 138) was enacted in 1971. Privatization of water resources began with giving use right on the sea, rivers, ponds which are the properties of Treasury or State Hydraulic Works, and untenanted from any fishery cooperatives or village association in 2003. It was decided that the use right of the areas and resources were defined by related Ministries. The same amendment in 2003 defined the areas, where the facilities were prohibited, and control criteria.

Privatization and marketization of the energy market have been promoted by the reregulated laws about energy sector. The first attempt was to privatize electric generation and services based on the Assignment of Institutions except Turkey Electricity Administration for Electricity Production, Distribution and Trade Law (no. 3096) in 1984. The law made possible to construct and run power plants partially by private sector. By 2001, electric market was left completely to private market with an amendment in Electricity Market Law (4628). After this amendment, Water Right Agreement was signed to construct hydroelectric power plants or dams (Erensü 2017, 125-126).

Another attempt is to improve “sustainable” and “clean” energy with the enactment of the Use of Renewable Energy Resources to Generate Electricity Law (No. 5346) in 2005. The law enabled the construction of renewable energy investments on forestlands, state lands and Treasury lands. Land allocations were made possible for infrastructures and roads of renewable energy investments with 2008 amendments. Moreover, the pastures were opened for the investments by the same amendment. The most crucial amendment came in 2010. It took commodification and privatization of natural areas further, and paved the way of construction of the investments and their facilities on national parks, natural parks, protection areas, the protected forests, special environmental protection regions and wildlife improvement regions (Legislation Information System, 2018).

The investments in natural areas not only occur in state lands or communal owned lands, they are carried out in private lands by expropriation or urgent expropriation. In 1983, the Expropriation Law (no. 2942) was enacted instead of older Expropriation Law (6830). According to these laws, the expropriation and urgent expropriation could be made occur only under the situation of state security for defense or under the public interests for indispensable public services. However, the law has been used as a mechanism to supply land for energy investments since the 2000s (see Chapter 3.1.). In

2018, authorization of expropriation decision was transferred to Presidency of Republic from Council of Ministries.

Regulations and reregulations never stopped, rather they were implemented to support the activities above in all natural areas, some of which had been previously protected. Besides the Forest Law and the Pasture Law, the most durable law, which had been exempted from amendments for decades, is the Reclamation of Olive Cultivation and Budding of Wild Olive Trees (No. 3573) enacted in 1939. The law prohibits to carry out industries, which generate chemical waste, dust or smoke, and harm the olive trees, away at least 3 km distance of olive groves. The law had been enacted long before neoliberal period, and few changes were made in the law. The mapping of olive groves of 2,5 hectare is decided with the amendment in 1995. The problem with this amendment is that the olive groves generally smaller than this size in Turkey (Cihanger 2015). The attempts about reregulation of the law increased especially by the 2000s. Six proposals were brought for the regulation of the law between 2002 and 2017 (Deutsche Welle 2017).

An important regulation in the Reclamation of Olive Cultivation and Budding of Wild Olive Trees was done in 2012. The added articles of the law state that if there is not any area for geothermal heating green housing, renewable energy and prospecting activities, the investment projects can be operated in 3 km distance of olive groves, provided the positive decision of environmental assessment report and decision of “public interest” by ministries. Also, the amendment specified the definition of “olive groves”. The definition means that whole lands registered as olive groves and unregistered lands, which are at least 2,5 hectare and fertile to grow olive trees except from forest boundaries, are accepted as “olive grove”. However, the definition and the amendment about the extended permission for industries close to olive groves were removed in 2015 (Official Gazette, 2012; Legislation Information System, 2018). The definition about olive groves based on the 1995 law; however, average size of olive groves in Turkey is 1 hectare, and the definition could cause diminish these olive groves with approval of dangerous activities for olive trees and their proliferation (Cihanger 2015).

Lastly, a suggestion named as Production Reform Package (The Draft about Amendment of some Laws and Regulations Aimed to the Development of Industry and Supporting the Production 1/187) was included in the decision about the activities on olive groves by Ministry of Science, Industry and Technology. In this draft, it was aimed

that the industrial or other investments can be approved in olive groves, based on the condition that the Ministry of Food, Agriculture and Livestock and Commission of Provincial Ministries under the Presidency of Governorship approved and decided for the public interest, in return of forestation with olive trees in a land elsewhere more than twice, if there was not any alternative place. In addition, it was suggested to change the definition of olive grove. According to the suggestion, the areas should be defined as one decare land with 15 olive trees except forest boundaries. In this way, the decrease in olive groves was legally approved, and construction or operation of any industrial facility in olive groves were made possible.

The Commission of the Industrial, Commercial, Energy, Natural Properties, Information and Technology did not approve to change olive grove definition; however, it approved the change of article 20 partially. Thus, the commission accepted tourism investments, accommodation facilities, and houses in olive groves under the condition of public interest decision by Ministry of Food, Agriculture and Livestock (The Draft about Amendment of some Laws and Regulations Aimed to Development of Industry and Supporting the Production 1/187; TBMM Commission Report (No. 485) 2017). According to this decision, it was the investor who was responsible for the harm to olive groves and remediation the areas.

This draft was approved on the 1st June 2017. However, on the 7th June 2017 it was revoked, because of the protests of olive producers, society, and NGOs. As the government held meetings with olive producers to persuade them, some members of the AKP objected to the amendment considering the negative impacts of the approval of these laws on next elections (Hürriyet 08.06.2017). Finally, the draft about the amendment of some laws were published on the 1st July 2017 without any changes about olive groves and investments there. Only the amount of pecuniary punishment about grazing in olive groves was increased (Official Gazette (no. 30111) 2017).

The Forest Law (no. 6831) is another law enacted before the neoliberal period, in 1956. The forests had been protected previously by strict prohibitions and punishments. However, the forestlands were opened for many investments through amendments and regulations done in the law. The search and operation of quarries in the forest have been approved since the enactment of Forest law. Firstly, it was made possible to allocate tourism investments in forest lands by the 2003 amendment in the Tourism Incentive Law

(no. 2634). With the amendments in 2002, 2004 and 2010, forest areas were opened for the infrastructures and constructions of natural gas, petrol, waste infrastructure, stock areas, dams, energy, communication, education, health infrastructures. According to the amendments, the construction and operation of private sector investments except from education and health infrastructures can be allowed. However, operation of education and health services can be transferred to private sector partially. In 2012, the construction of state dormitories in forests was approved. Also, the construction of health and education facilities by private and public partnerships was made possible in return of forestation costs. By the amendment in 2014, the forests were opened to use as a stock area for excavations of railroads, highways, roads, water infrastructures, again in return of forestation costs. According to the last amendments in 2018, industries, which use trees such as wood charcoal, mastic, coal tar etc., land infrastructures, underground stock areas and land constructions for fish farms in forests were approved. Besides, archeological excavations and restoration operations were allowed in the forest areas. After the increase in the authorization of the President of Republic in 2018, it was made possible that the President of Republic could take some areas defined as fertile and also convenient for settlement out of forest boundaries. These areas could be transferred to the property of Treasury, and new forest areas could be transferred to Ministry of Forestry and Water affairs.

The Pasture law (no. 4342) was enacted on the 25th February 1998. The most important article about the obligation for the protection of pastures is the article 4. The article states that the pastures are the properties of government and the use rights on the pastures are assigned to villages or municipalities; and, they cannot be privatized, used except from its grazing function, and narrowed down. Nevertheless, the pastures could be leased only for quarries and petrol “searches”, if their productivity were definite and indispensable; or, for indispensable tourism investments, the construction plans, soil protection, the protection of gen sources, construction of national parks and forests, protection of natural, historical and cultural properties, flood control, regulation of river and water sources before the amendments. The approval of investments and their conditions were extended by amendments in 2005, 2008, 2014 and 2017. Firstly, the use rights on pastures were extended, based on the statement that quarries and petrol “activities” the productivity of which were definite and indispensable, can be operated on pastures. Secondly, the terms of “definite” and “indispensable” were removed, and all

activities about petrol or quarry search and operation were allowed. Then, the use of the pastures was extended to the preparation of village settlement and implementation plans or implementation added plans, aquaculture production in rivers or water resources in pastures, or to constructions, security facilities, public services under the situation of public emergency, settlements to be moved from natural disaster areas by the amendment on the 3rd July 2005.

The amendment in the Pasture Law in 2018 promoted codes and situations to supply lands (pastures as common lands) for energy investments. The amendment opened pastures for petrol transportation and pipelines, operation of electricity and natural gas facilities, and geothermal sourced green houses. Conservation responsibilities were defined in a way of making the investors responsible for running these activities in harmless way, and for rehabilitation of the areas at the end of the allotment time. Moreover, pastures were opened for the urban transformation and regeneration projects in 2014. The pasture areas to be used for such purposes were to be defined by Council of Ministries. The term “Council of Ministries” was changed as “Presidency” in 2018, after transition from Parliamentary system to Presidency system in 2018. Not to mention, at the end of 2017, the use of pastures made possible for the necessity of construction and extension industries, technology development areas, organized industrial zones and free zones. It is obvious that the pastures were opened for new activities with reregulations of the Pasture Law (no. 4342) after 2005, despite the absolute article of the law stating that the pastures cannot be narrowed down or used except from its function. In addition, the decision about some investments on pastures has become dependent more on “central” authority with reregulations.

The Soil Protection and Land Use law (no. 5403) was enacted in 2005. The law prohibited to use the certain, marginal and special product agricultural lands except from their original agricultural function. However, oil, natural gas and quarry search and operations, and any plan or investments could be approved, on the condition that ministries decided considering public interest, or under the necessary situation for defense. The areas were opened for the construction of infrastructures and roads of the investments in 2007; and, for sustainable energy investments and geothermal greenhouse investments under condition of public interest in 2008. Lastly, the 2014 amendment has given the authorization to ministries about the land consolidation and expropriation of the small agricultural areas; however, the article was removed in 2018.

On the other hand, the use of protection areas was extended with reregulations and newly enacted regulations. The amendment in 2018 about State Lands in Natural Protection Areas and the Natural Resources and Special Environmental Protection Areas (enacted in 2013) facilitates the procedures on the use of natural protection areas. The regulation defines the procedures and codes about the use and management of the conservation areas. The definition of term “preliminary permission” was changed with the regulation, and the constraint that “the demand must be found in plans” was removed. Also, the preliminary permission began to be given for preparing plans, especially development plans for the land use proposal with the changes of the regulation. The regulation also removed the constraints about the binding of development plans or upper scale plans for the new proposals. The statement that “the proposal must be convenient for whole upper scale plans” was removed. So, the amendment paved the way of changing previous development and conservation plans according to purposed uses. Both of the amendments enabled to propose new uses and activities in the conservation areas, without considering if they were not defined in pre-plans or upper-scale plans. Moreover, the opportunity was given to institutions for using the areas with conservation, observation, management, development and treatment of biodiversity and environment aim at least for ten years by an added article (Official Gazette 2 May 2013; 23 June 2018). The new regulation supports commodification of natural areas through ecosystem services. The regulations are examples of the reregulation mechanisms to make possible to use conservation areas for new capitalist activities.

The amendment in the Regulation on Plans in Protection Areas (enacted in 2012) released in 2016, presents a legal framework and procedure to make plans on protection areas. Besides, it includes definitions and conditions about the natural protection areas and their degrees. According to previous version of the regulation, if a decision about a protection area is announced during any plan process, the plan processes must be stopped. Then, the proposal and plan are reconsidered according to biodiversity or justification report about protection areas. The requirement of reconsidering plans in protection areas according to biodiversity or justification report removed in 2016. Furthermore, the classification of the natural protection areas was changed by the same regulation, redefining old classification of natural protection areas. Thus, first degree natural protection areas were renamed as “absolute protection areas”, second degree natural protection areas as “qualified natural protection areas”, and third - degree natural

protection areas as “sustainable protection and use areas” (Official Gazette, 6 December 2016). New type of classifications, and their new legal descriptions and codes were introduced by the Principle Decision About Conservation and Use of Natural Protection Areas (no.99) on 5th January 2017. It made possible to extend use rights in first and second-degree natural protection areas. According to the decision, the first-degree natural protection areas can be classified as “qualified natural protection areas” and second-degree protection areas as “sustainable protection and usage areas”, based on a scientific environmental assessment report. Thus, in “sustainable protection and use areas”, it was made possible to carry out a wide range of activities, which had never been allowed before in second degree- protection areas, such as aquaculture and industrial activities defined in upper-scale plans, green house cultivation, petrol station, quarries, waste water treatment facility, low density housing and tourism constructions and infrastructures. These activities could be operated previously in third degree natural protection areas. Henceforth such activities can be run in second degree natural protection areas by changing their classification, disregarding their natural qualities (Official Gazette 5.01.2017; Ministry of Environment and Urbanization – General Directorate of Protection of Natural Assets Official Website 2018).

As to environmental impact assessment, it followed the enactment of the Environment Law (no. 2873) that was enacted in 1983. The enactment of the law was a response to the environmental concerns and control the harms of extended capital on natural areas and sources. It stipulated that environmental assessment reports had to include evaluation of environmental impacts of the investments, and precautions. The regulation on Environmental Assessment was enacted in 1993. However, in the law 17 amendments and regulations were made from 1993 to 2019. Almost all changes in the law were to buttress capital. The regulations before 2013 were somehow concerned with implementation of environmental assessment projects or adaptation to international conservation agreements. For example, with the 2002 regulation the participation of society in the environmental assessment process became important, but following regulations did not consider the issue so much. In 2013, environmental impact assessment report became an obligation for the approval of petrol, natural gas, geothermal search projects. However, the regulations never improved environmental conservation, because many decisions were taken that environmental assessment report was not necessary. Between 1993 and 2015, the number of decisions taken for the necessity of environmental

impact assessment report was 777, but the number of decisions that held the environmental impact assessment report to be unnecessary was 51,200, (Turan and Güner 2017, 40-43). As mentioned in Chapter 2.5. with the new regulation in 2014, a specific capacity was defined for the decision that environmental assessment report is necessary; and proposals began to be evaluated with the impacts of only added capacity rather than taking into consideration cumulative effects. The environmental assessment situation was redefined according to the capacity of wind power or solar power projects (Çoban et al. 2015, 7). Another important change is that some investments such as railways less than 100 km, gulf areas or residential projects including houses less than 500 were exempted from the obligation of environmental impact assessment reports. Currently, the Ministry of Environment and Urbanization decides the necessity of environmental assessment report for the investments according to pre-environmental report (Turan and Güner 2017, 44).

3.3. Reregulation, Institutional Restructuring and Re-scaling

Turkey has undergone multidimensional spatial and governmental restructuring and rescaling resulting in profound changes in natural areas and their management after 2000. As Kuyucu (2017) argues, following the crisis in 2000, Turkey entered firstly a decentralization process with strengthening authorities of local municipalities on regional scale. Then, “centralization” process began after the crisis in 2008.

The management of villages and neighborhoods, which have natural and rural characteristic, were rescaled by the enactment of Metropolitan Municipalities Law (no. 5216) on 23.07.2004, the Development Agencies Law (no. 5449) on 08.02.2006, and the Delegated Law on Fourteen Municipality and Twenty-Seven Provinces (no. 6360) on 06.12.2012. The Development Agencies Law (no.5449) authorizes the development agencies to prepare the upper scale plans according to economic regions. Other laws are related to authorities over rural areas. Some provinces with rural characteristics were included in the boundaries of the metropolitan municipalities by the Law numbered 5216 in 2004. All of the districts in some provinces were included in the boundaries of metropolitan municipalities, and the term “village” was transformed into “neighborhood” by the Law numbered 6360 in 2013. In these areas, authorization of local municipalities has decreased. The transfer of property and use rights on common village areas defined

with Village Law (no. 442) became a controversial issue because the “village” qualification of the places was removed by the law. The common lands as “village common areas” are transferred to related municipalities, metropolitan municipalities or local municipalities.

On the other side, authorities on the natural areas and natural protection areas were changed in different times, especially with changing ministries and their authorizations. The authorization for the approval of most investments in rural areas was given to the Ministry of Environment and Urbanization in 2011. So, the Ministry of Urbanization and Environment started to do Environmental Plans or Strategic Coastal Plans according to natural boundaries by delegated legislation on Organization and Duties of Ministry of Environment and Urbanization (no.644). One of the areas influenced by such transfer of authorization is Special Environment Protection Areas. In 2011, Directorate of Special Environment Protection Institution was closed and its authorizations such as conservation and increasing the fertility of resources, preparing implementation plans and revising whole scale plans, approval of the plans in the areas, and expropriation of properties were transferred to Ministry of Environment and Urbanization (Legislation Information System, 2018). Also, the amendment of delegated legislation (no. 648) in the same year transferred authorization on natural protection areas to the Ministry of Environment and Urbanization from the Ministry of Culture by the establishment of Directorate of Natural Properties Protection.

Lastly, parliamentary system in Turkey was transformed into presidential system. Accordingly, many laws reregulated like Expropriation Law or Pasture law, and the authorities of the Council of Ministries to decide on “public interest” or to define the areas for expropriation were transferred to the President of Republic. Consequently, Turkey has experienced a centralization process after 2008. The process began with a local scale; however, most authorities over natural areas were gathered into the monopoly of the Ministries and the President of Republic of Turkey.

CHAPTER 4

METHODOLOGY

4.1. Time and Place of Field Research

Three field surveys were carried out in Karaburun Peninsula. Data collection and in-depth interviews were held during these field surveys. Besides, the investments were observed during the field surveys. The data about related plans, lawsuit processes, and expert reports were taken from Karaburun City Council and Karaburun Municipality in May 2018; The data on allocated or expropriated lands were taken from Karaburun Cadastral Unit and Karaburun Directorate of National Real Estate. The data about fish farms and agriculture lands were gathered from Karaburun Agricultural Unit in October and December 2018. In-depth interviews with ex and present village chiefs (*Mukhtars*) in Salman and Yaylaköy villages and goat breeders were conducted in October 2018. In addition, Interviews with the members of Karaburun City Council have continued during the field research and in the thesis writing process. Besides, a meeting with Doğa Derneği was held about the situation of Karaburun Peninsula, and data on conservation of the Peninsula were gathered.

4.2. Data Collection and Techniques

The digital data (GIS) on Izmir Land Classification Project (2013) prepared by Ege University and 1/100.000 scaled Izmir - Manisa Master Plan 2014-2023 (2013) prepared by Ministry of Environment and Urbanization were compared to verify the land use data. The digital data on the projects and the plans were taken from 2016-2017 CP502 City Planning Studio at the Izmir Institute of Technology. The Land Classification Project was prepared as a base for the master plan by the Ege University. According to the project report, the information about lands was gained by different government institutions. Besides, it is explained that in the report, the cultivated agricultural lands were defined by the Ege University. In the Izmir - Manisa 1/100.000 scaled Master Plan, these

cultivated areas are defined as pasture areas, but they are enclosed olive groves. The Plan Report states that the data were gathered from different institutions, and integrated. The Provincial Pasture Commission is one of the institutions, and the pasture areas are grazing lands used from the immemorial times by local people. These areas defined in the 1/100.000 scaled Master Plan overlap with those described by goat breeders during the field survey. The reports of both Peninsula (Urla-Çeşme-Karaburun) Development Strategy by Izmir Development Agency and the Ege University's Land Use Project remark that the registration process for pasture continues. According to the gathered data about pastures by Karaburun Cadastral Unit, the pasture areas were registered partly (Figure 5.7.) and the registration process is continuing. The data about newly registered pastures were taken from Karaburun Cadastral Unit, and the converted into the GIS data. Consequently, the cultivated lands had a different use in Karaburun Peninsula before the private forestations and plantation of olive trees in 2006. As well as, the change in land use was confirmed with the data about the agricultural statistics of Izmir by dates (1996-2016) and the data about allocated plots for private forestation. Agricultural statistical data were produced by Izmir Provincial Directorate of Agriculture and gained by 2016-2017 CP502 City Planning Studio in Izmir Institute of Technology. List of allocated plots currently used for industrial olive production was taken from Karaburun Directorate of National Real Estate.

The general information about the rural characteristics of Karaburun and its villages were gathered from Karaburun Directorate of Agriculture and TUIK Official Website. The data on fish farm companies and their production capacities were taken from Karaburun Directorate of Agriculture. The locations of the fish farms were defined by Google Earth by dates (2006, 2012, 2016, and 2018). Bird Sensitivity Map as a GIS data set was provided from Doğa Derneği.

The lists of wind turbines and projects areas of wind farms in Karaburun were gained by EPDK Official Website (2018). The KML data about the location of wind turbines in Karaburun Peninsula were taken from 2017-2018 CP502 City Planning Studio in Izmir Institute of Technology, and converted into GIS data. Then they were compared with the 2016 data about the location of wind turbines in Karaburun (Özçam 2016).

Lists of allocated or expropriated plots for wind farms were gained partially by Karaburun Cadastral unit. The data about plots in some project areas especially in Mordoğan couldn't be accessed. There are more plots related to the wind farm project

areas (Figure 6.5.), and allocation or expropriation process. Besides, digital data of some plots are not accessible in Plot Information System, because lawsuits, allocation and expropriation processes continue. Thus, these plots aren't seen in the synthesis map.

The lawsuit processes, lawsuit petitions, expert reports and other documents related with wind farm projects, quarries, fish farms, etc. were taken from Karaburun City Council. Also, Verbal Geographical Report which includes the interviews with goat breeders was provided by Karaburun City Council. Besides, four in-depth interviews were done with former *Mukhtars*, goat breeders and members of Karaburun City Council during field surveys.

The plans of Karaburun were provided by Karaburun Municipality during the field survey. The plan revisions, law processes and their results have been updated with the internet and field survey in the thesis process. The environmental impact assessment reports and plans about wind farm projects were found on the Official Website of the Ministry of Environment and Urbanization.

4.3. Data Analysis

All data about land use and investments are converted into GIS format, overlapped and arranged in the ArcGIS environment. The KML data about the location of wind turbines by EPDK (2018), and the data set of projection in the 1/100.000 scale Izmir-Manisa Master Plan (2013) were converted to the same format. Fish farms were defined based on Google Earth. Then, the data were exported as KML data and converted into GIS data. The list of allocated and expropriated plots for private forestation and wind farm projects were digitalized thanks to Plot Information System. The plots were found in the system, downloaded as KML data, and converted into GIS data. As a result, a synthesis map (Figure 6.1.) was created by the author. The allocated plots for private forestation were controlled in Google Earth Satellite photos, and it was defined that the plots have been planted with olive trees for industrial agriculture, after 2006. Lastly, olive groves, fish farms, wind farm project areas and quarry areas have been observed, and their photos were taken during the field surveys.

CHAPTER 5

SOCIO-NATURAL CHARACTERISTICS OF KARABURUN PENINSULA

5.1. General Socio-Economic Characteristics of Karaburun Peninsula

Karaburun Peninsula is located on the West coast of Izmir province, and the surface area of the Peninsula is 415.000 km². Distance between Karaburun and Izmir city center is approximately 100 km. Topography of the Peninsula is rough and mountainous. Therefore, it is difficult access to Izmir city center. The settlements have generally rural characteristics. Thus, the natural areas of the Peninsula could have been conserved for a long time.

History of the Peninsula dates as back as the Chalcolithic period. There were five important cities of Erythrae in the Peninsula from the Ancient Era. Then, the Peninsula was captured by Persians, Romans and lastly by the Ottoman Empire in 1415. It is predicted that the fertile lands of the Peninsula were used for agricultural production by villagers. There are some records about current villages and settlements such as Parlak, Küçükbahçe, Kösederesi and Bozköy in the 1575 title deed book. There were 22 villages according to population census in 1831. However, as approximately half of the population had been composed of Greek people, a significant amount of the Greek population has decreased, and some of villages became empty after the population exchange in 1914. Another decisive turning point for the population decrease and spatial change in the Peninsula came in the 1950s. The earthquake, then a great economic depression triggered migration to Izmir city center and surrounding provinces. In the 1980s, the composition of the population and land use began to change with the development of settlements on the West coast and the growth of secondary housing in the coastal areas (IZTECH 2005; 2010). There had been 14 settlements which is under the authority of two local municipalities, Karaburun and Mordoğan Municipalities, before the laws no. 5216 and 6360 related to changing legal status of the settlements and their management (Figure 5.1.).

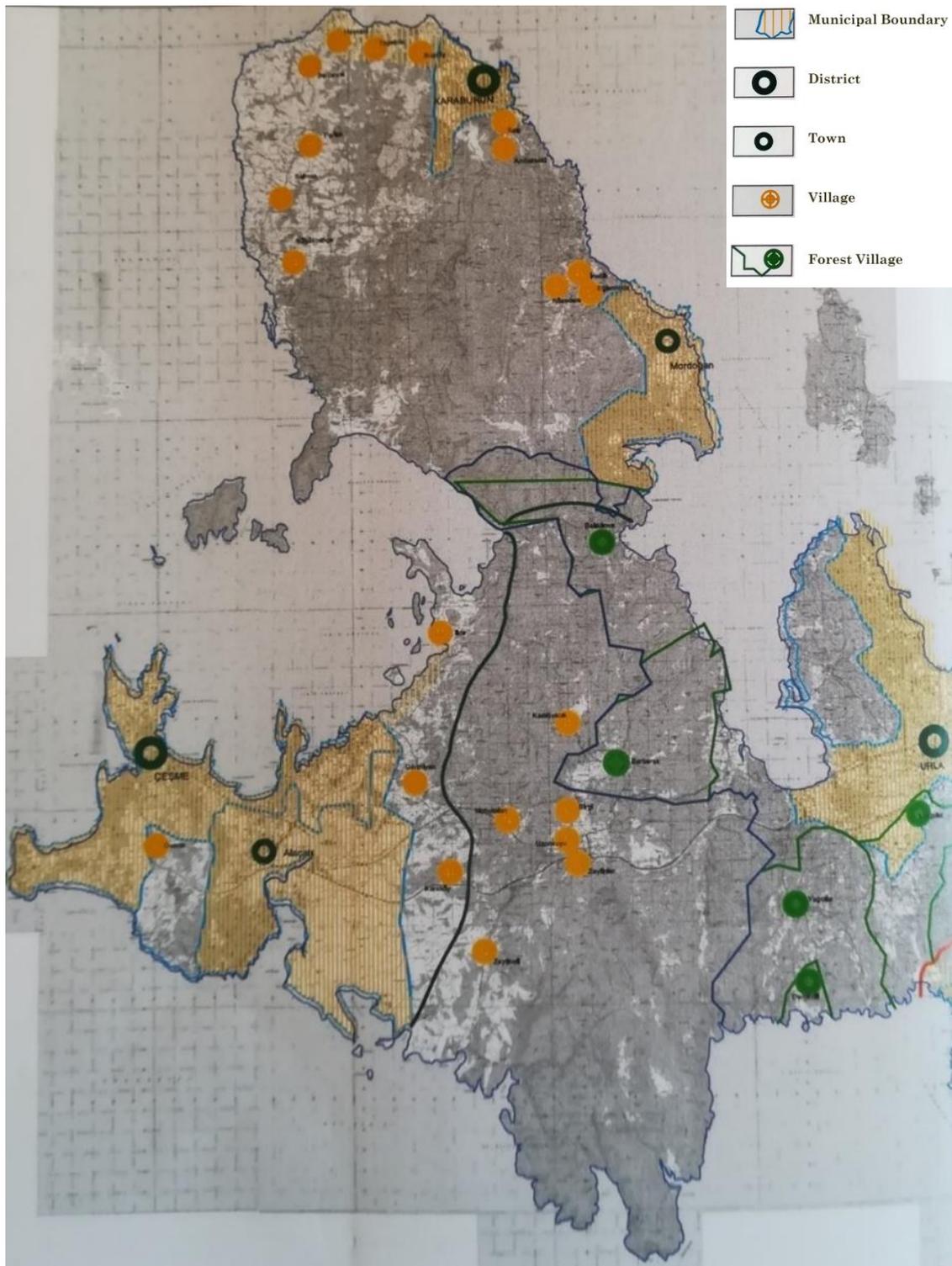


Figure 5. 1. Administrative Structure of Karaburun Peninsula (Before Law no. 5216 and 6360)

(Source: IZTECH 2010, 9)

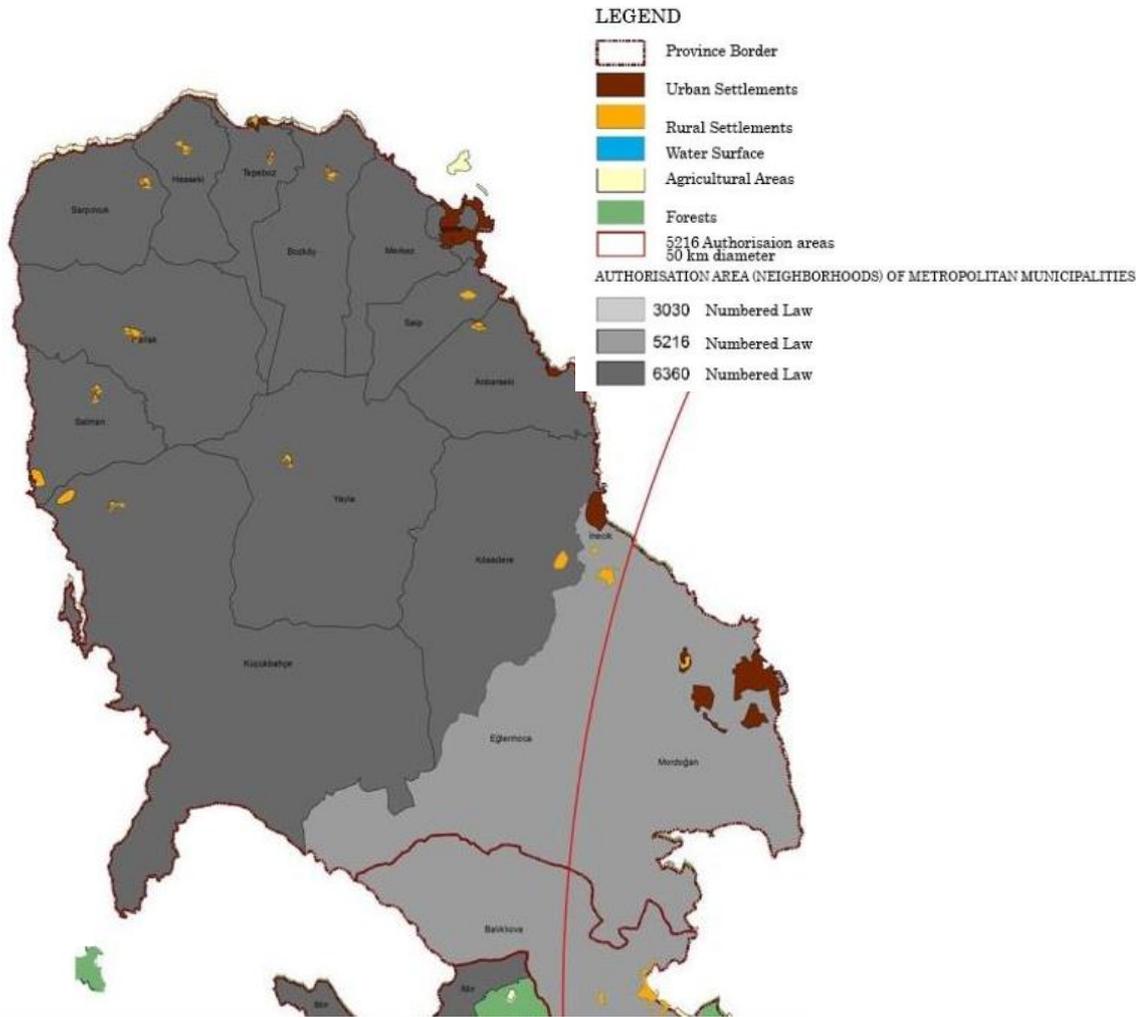


Figure 5. 2. Rescaling of Administrative Structure with Laws in Karaburun

(Source: IZTECH 2017)

Currently, the category of “village” was removed, and villages were classified as neighborhood. However, they have still pastoral characteristics with agricultural production, cultural and social structure. In addition, Mordoğan Municipality was abolished as a local government, and the management authorities of whole settlements were transferred to Karaburun Municipality. All settlements were included in the Izmir Metropolitan Area in 2012 (Figure 5.2.). Also, plans began to be done according to the new boundaries of the Izmir Metropolitan Municipality.

The population of Karaburun is 10.603 in 2018. The population of the province tends to increase, but in a low rate. It was 9.020 in 1990. Not to mention that the increase (especially between 1990 and 2000) began parallel to the spread of secondary housing and the increase in seasonal population. However, there is a dramatic decrease between

2000 and 2007. Also, the trends in whole population including both rural and urban were similar to each other in these periods (Figure 5.3.).

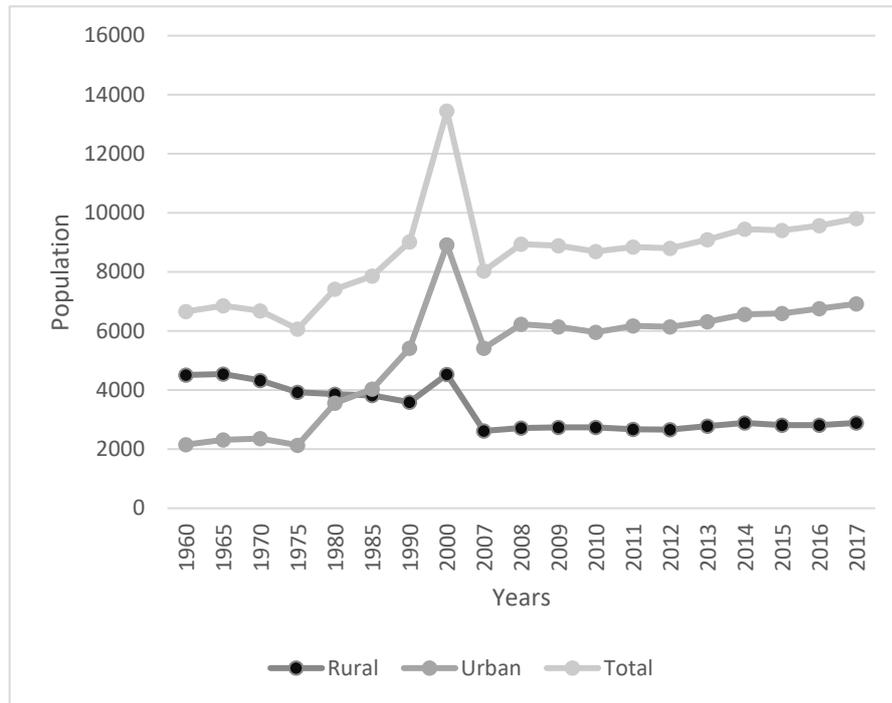


Figure 5. 3. Distribution of Rural and Urban Population in Karaburun by Years

(Source: IZTECH Analytical Research Report 2005 and TUIK 2018 data)

Furthermore, the increase of population did not occur with the same speed in villages. It is obvious that the increase is related with the increasing population in settlements which have urban characteristics such as Mordoğan, İskele and Centre neighborhood. The population of settlements having village characteristics was generally stable, decreased or increased slightly between 2007 and 2017. The population of Saip, Bozköy, Tepeboz and Kösedere villages, which are located near to the secondary housing, urban settlements or coastal, increased more. Especially, the population of Saip village, which is close to İskele and Karaburun Centre neighborhood increased with the highest rate. The population of the villages such as Salman, Sarpıncık and Eğlenhoca which have agricultural production and goat breeding generally decreased or was stable. The most decrease is observed in Yaylaköy especially after 2013 (Table 5.1.). Not to mention that the livelihood sources of local people in Yaylaköy village is goat breeding, and their pastures significantly have been narrowed down because of enclosure by wind farms and industrial olive groves.

Table 5. 1. The Population Change in Karaburun Peninsula by Years 1960-2017
(Source: IZTECH Analytical Research Report 2015 and TUIK 2018 data)

	Anbarseki	Bozköy	Eğlenhoca	Hasseki	Kösedere	Küçükbağçe	Parlak	Saip	Salman	Sarpıncık	Tepeboz	Yayla	İncik	İskele	Merkez	Mordoğan	Çatalkaya
1960	341	264	788	245	825	381	235	321	150	256	292	235	173		998	560	600
1965	331	256	757	224	851	462	225	326	109	282	271	250	199		1053	545	716
1970	287	208	715	203	805	590	203	338	110	242	263	209	152		1120	455	783
1975	258	206	628	145	774	469	181	288	110	249	253	173	198		1235	415	486
1980	249	202	666	154	777	371	193	285	92	234	195	176	268		1456	576	1526
1985	263	170	638	149	689	398	176	229	151	224	288	173	276		2020	2018	
1990	224	152	578	167	558	457	184	223	121	201	278	130	324		3405	2018	
2000	253	177	702	91	673	776	183	219	163	244	357	131	559		2932	5986	
2007	192	101	431	91	340	426	109	153	124	138	258	112	143	1261	1228	2933	
2008	217	113	433	91	340	441	127	163	121	136	277	103	157	1611	1387	3228	
2009	211	111	443	96	369	445	130	155	121	136	258	129	138	1445	1340	3362	
2010	215	120	428	85	363	471	129	151	119	131	269	110	142	1416	1269	3271	
2011	202	119	410	97	365	447	121	161	107	124	266	114	142	1443	1285	3445	
2012	193	117	400	105	359	460	122	161	107	112	273	111	137	1464	1258	3420	
2013	181	133	405	110	366	453	133	181	106	127	278	153	155	1557	1169	3585	
2014	195	147	421	119	350	504	134	205	102	117	292	139	167	1599	1210	3754	
2015	186	168	406	123	376	464	132	197	99	102	298	103	155	1631	1138	3825	
2016	193	166	410	117	373	458	135	202	104	103	303	97	154	1678	1117	3965	
2017	187	177	399	105	400	453	120	282	112	114	296	85	155	1673	1193	4060	

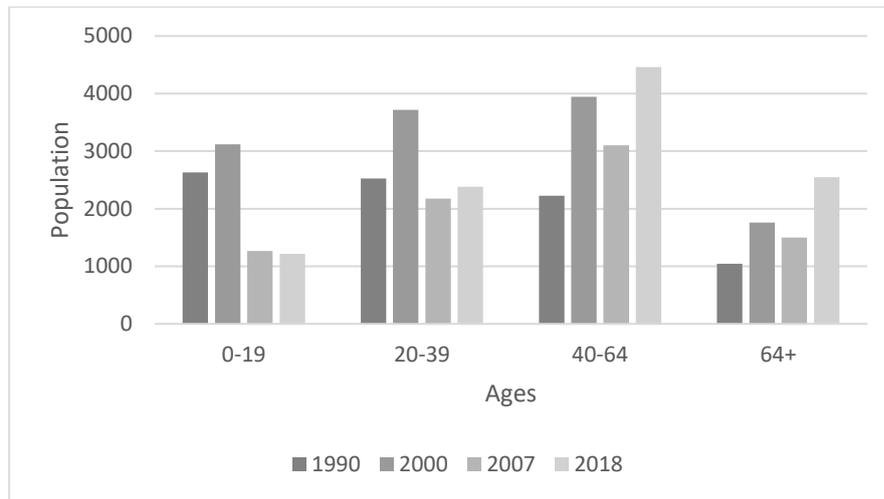


Figure 5. 4. Age Distribution of Population in Karaburun Peninsula

(Source: TUIK, Access Date: 2019)

Furthermore, the growth rate of population is related with increasing middle and old-age population. It is observed that young population decreased, or increased a little between 1990 and 2018 (Figure 5.4.). On the other side, the number of 40+ age people increased between the same years.

Table 5. 2. Sectoral Distribution of Employment in Karaburun

(Source: IZKA 2013)

Sector	Rate
Agriculture, Hunting, Woodcraft, and Fishery	61.74%
Mining and Quarrying	0.04%
Manufacturing Industry	4.60%
Electricity, Gas, and Water	0.32%
Construction	5.46%
Commerce and Services (Restaurant, hotel etc.)	7.58%
Transportation, Communication, and Storage	2.52%
Financial Institutions, Insurance, Real Estate, Subsidiary Service	4.55%
Public Services, Social and Personal Services	13.13%
Other Undefined Activities	0.06%

Local people earn their living with goat breeding and agriculture production. Considering employment rates (Table 5.2.), the category covering agriculture, forestry, fishery and hunting is represented with the highest rate, 61,7%. There is no data about the sectoral employment rate by districts. Also, there is no current data about the distribution of employment. However, the situation and changes in the land use and agricultural

production show that agricultural employment and production continue with remarkable decreases by years.

Karaburun Peninsula is covered by agricultural lands, pastures, forests and olive groves. The rates of land use distribution of Karaburun Peninsula in the 1/100.000 scaled Izmir-Manisa Master Plan (2013) were accounted by using ArcGIS. The results were compared with the rates of the Izmir Land Classification project and the Peninsula Sustainable Development Strategy Plan. According to 1/100.000 scaled Izmir-Manisa Master Plan, approximately 56% of the Karaburun Peninsula is forest, 32% is agricultural land and 7% is grassland and pasture. Meadows and pastures in the plan are not registered. Hence, pastures are seen as cultivated agriculture lands in the Izmir Land Classification project and the Peninsula Sustainable Development Strategy Report. Thus, the total agricultural area is approximately 39% of the Peninsula in the projects. Besides, the areas are under conservation with the Soil Protection and Land Use law (no. 5403).

The most accurate land use definition is found in the 1/25.000 scaled Izmir Metropolitan Municipality West Master Plan based on Izmir Land Classification Project and the 1/100.000 scaled Izmir-Manisa Master Plan. However, newly registered pastures are not indicated in the plan. The pastures in the plan are used by goat breeders from immemorial times and they are in registration process. In 1/100.000 scaled Izmir-Manisa Master Plan and its digital data about the old land use, the pasture areas in the North of the peninsula were transformed into olive groves. The areas are seen as agricultural lands in 1/25.000 Izmir Municipality West Master Plan because the plantation of olive trees began in the pasture areas after 2006 by the allocation of the lands for private forestation. Thus, the pasture areas previously communally owned as village properties were removed and converted into agricultural lands (Figure 5.3.). Provincial Directorate of Agriculture data confirms the increase of olive trees and olive groves by years (Figure 5.5. and 5.8.). After this change in landscape, rate of the areas indicated as pastures in Izmir-Manisa Master Plan decreased approximately 3,5%. According to the data taken from the Karaburun Cadastral Unit in December 2018, the registered pastures cover the 1,5% of the Peninsula, approximately 6600 decares land. In fact, the access to these pasture areas were significantly limited because of the enclosure by the wind turbines (Figure 6.1.). By using all data, a synthesis map and graph were prepared to indicate the current and past situation of land use in Karaburun Peninsula (Figure 5.5 and Figure 5.6).

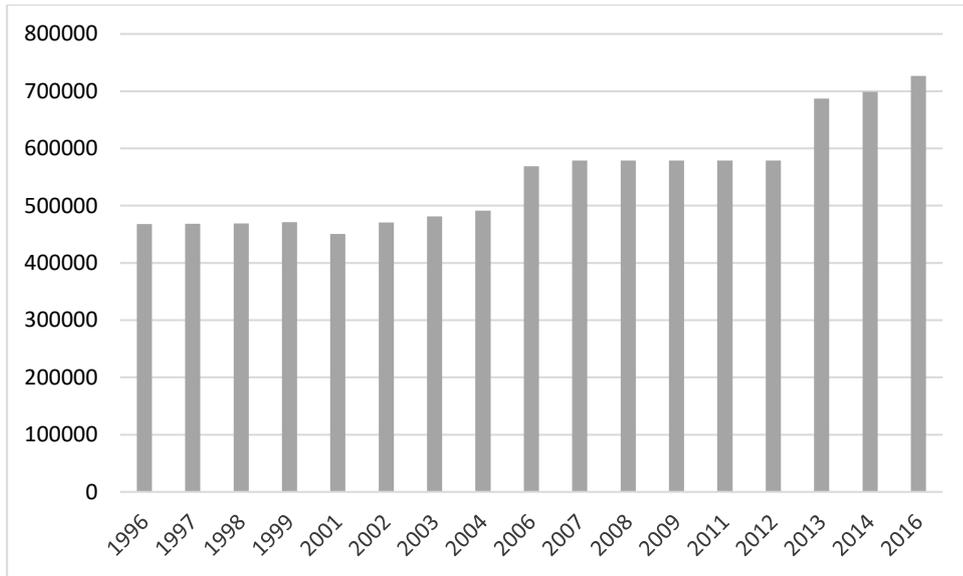


Figure 5. 5. Number of Olive Trees by Years

(Source: Agricultural Statistics Data 1996-2016, Provincial Directorate of Agriculture 2017)

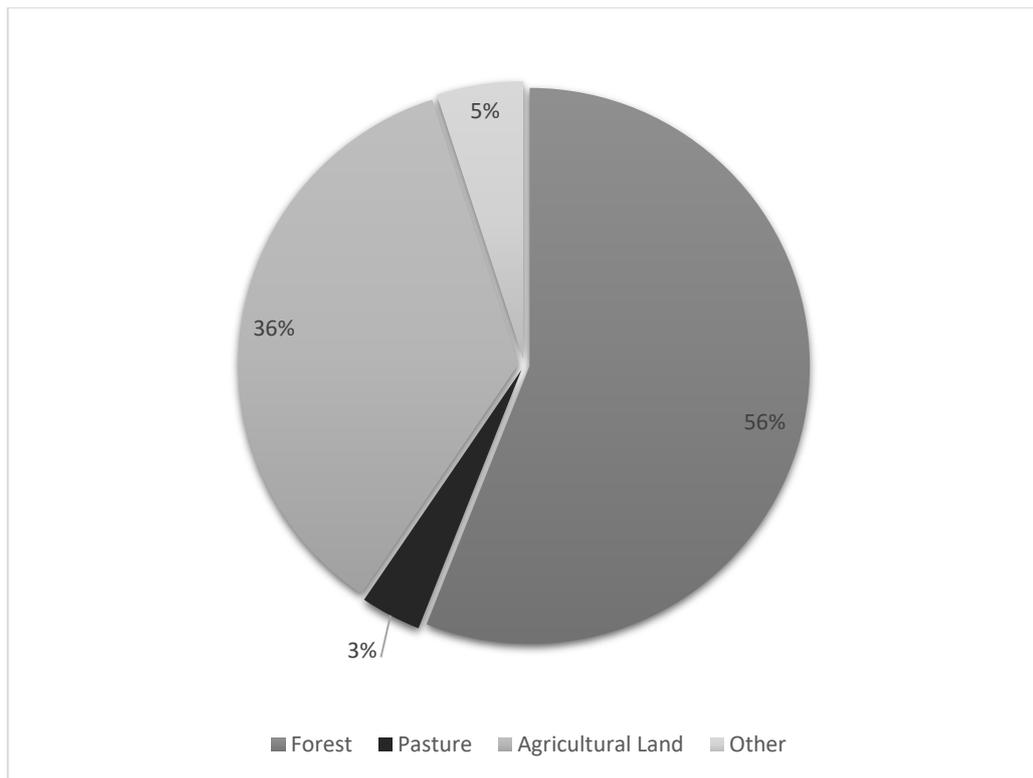


Figure 5. 6. Distribution of Land Use in Karaburun Peninsula

(Source: Prepared by Using the Digital Data of 2014-2023 Izmir Manisa Master Plan)

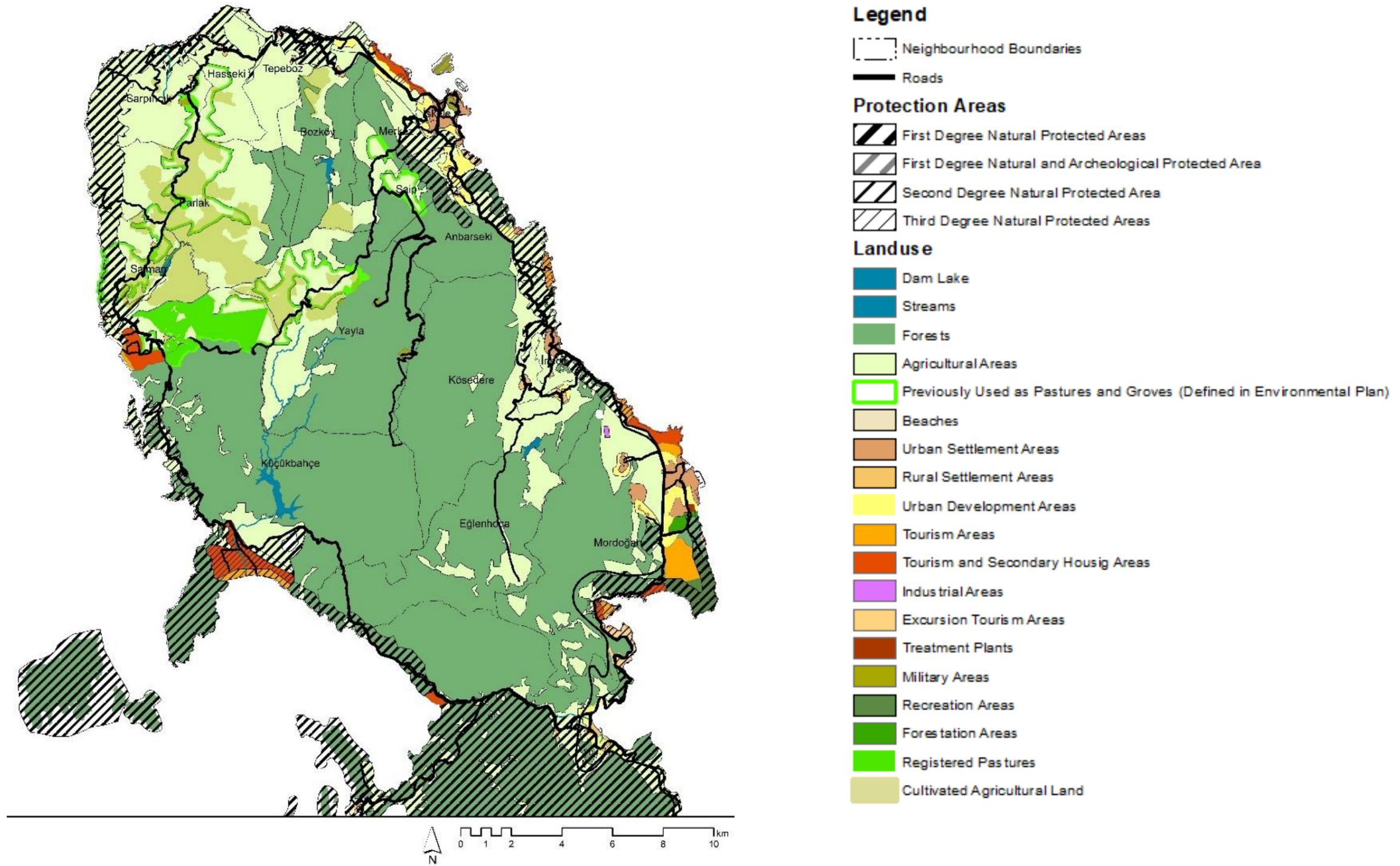


Figure 5. 7. Land Use in Karaburun Peninsula

(Produced by Analyzing and Processing the Digital data of 2014-2023 Izmir Manisa Master Plan, 2018 data of Listed Plots by Karaburun Directorate of National Estate and Karaburun Cadastral Unit by Using ArcGIS)

The changes in agricultural production is observed in the Figure 5.7., and agricultural statistic data in the Figure 5.9. As to be seen, the agricultural lands and production which is another means livelihood for villagers decreased.

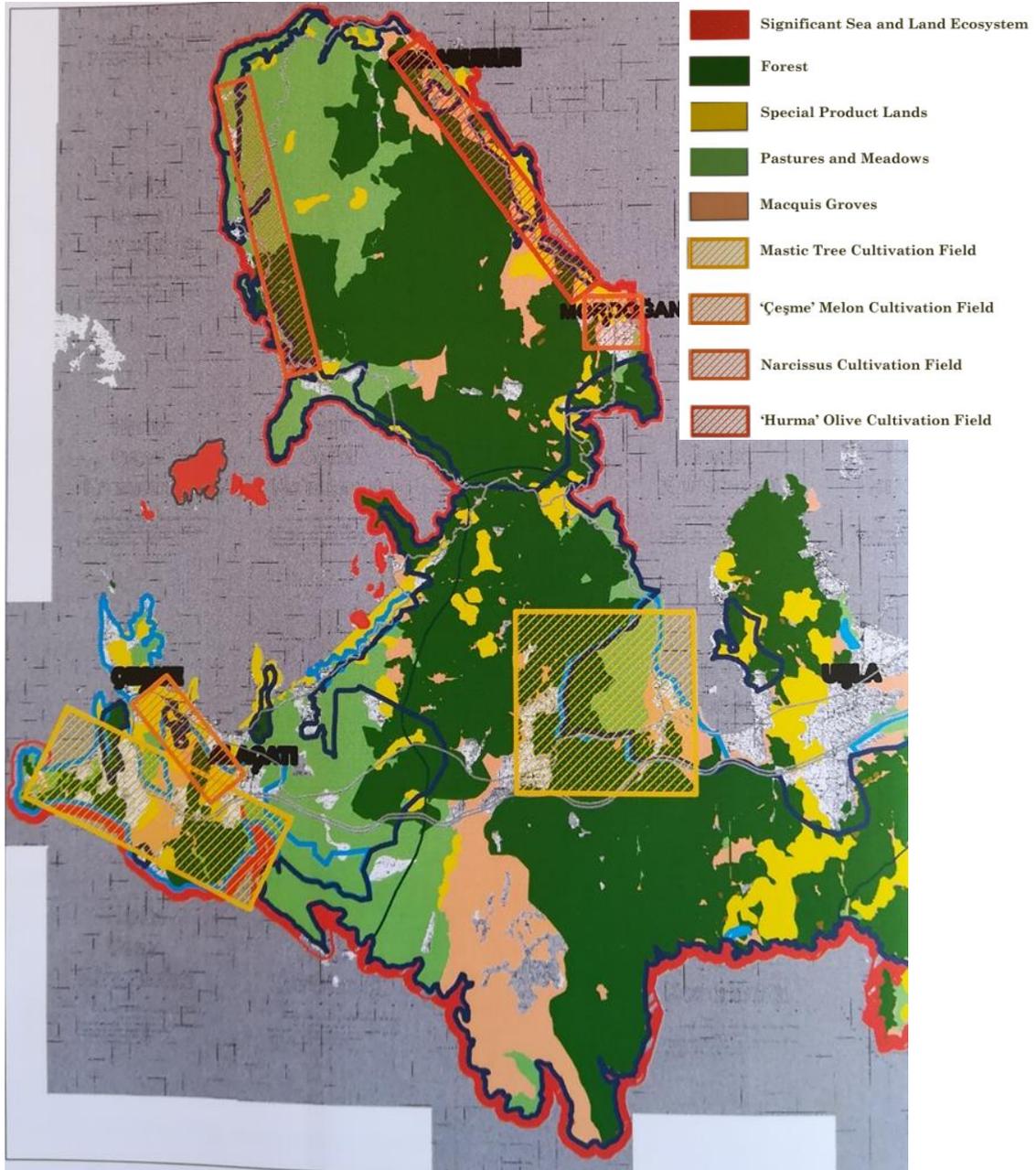


Figure 5. 8. Agricultural Production Areas in Karaburun Peninsula

(Source: IZTECH 2010, 43)

There is production of a special mandarin species as “Erkenci” mandarin generally in villages in the West of the Peninsula such as Sarpıncık, Salman, Küçükbahçe and Parlak villages. Also, Küçükbahçe and Salman villages are important for artichoke production. Narcissus is produced mostly in Küçükbahçe, Salman, Parlak, and Mordoğan

villages. Also, it is produced in Tepeboz and Bozköy villages. The origin of ‘Sultaniye çekirdeksiz’ grape species is Karaburun peninsula, but vineyards of this species decreased from 65.000 decares in 1926 to 700 decares in 1998 (Karaburun City Council, 2014). Henceforth, the vineyards remarkably narrowed down (Figure 5.9.). Currently, vineyards are located in only Eğlenhoca and Kösedere villages. There is “Hurma” olive which is a characteristic and special product of the Peninsula, and it is famous since Ancient times together with narricus and artichoke (Emekli and Soykan 2008). “Hurma” olive is also an important source of income for local people.

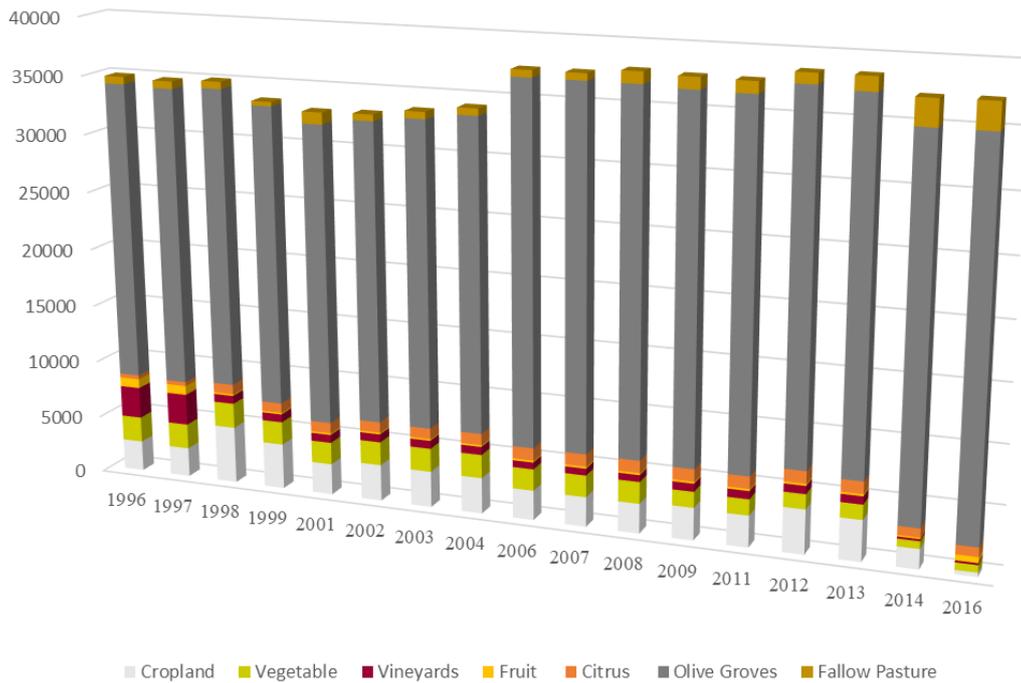


Figure 5. 9. Distribution of Agricultural Lands in Karaburun Peninsula by Years
(Source: Agricultural Statistics Data 1996-2016, Provincial Directorate of Agriculture 2017)

There are olive groves in whole Peninsula, and olive production is done in almost all villages, especially in the west of the Peninsula (Figure 5.8.). Besides industrial olive production has spread since 2006. Provincial Agricultural Directorate data (1995-2016) shows that the croplands, fruit gardens, vineyards and vegetable land decreased by years, as the olive groves increased dramatically after 2006 (Figure 5.5). In the peninsula, only citrus production did not decrease (Figure 5.9.).

Table 5. 3. Number of Goat and Amount of Milk Production by Years

(Source: Agricultural Statistics Data 1996-2016, Provincial Directorate of Agriculture 2017)

	Total Goat (Kıl Keçisi)	Milked Goat	Milk Production (ton)
1996	21470	8650	1038
1997	22500	9000	1080
1998	23400	9400	949
1999	24000		
2001	19800	8200	1230
2002	20220	8560	1284
2003	20040	9906	1485.9
2004	23185	11500	2070
2006	23185	11500	2070
2007	22100	12400	2108
2008	18600	8400	1008
2009	19260	9000	1080
2011	20400	7500	750
2012	21350	8000	560
2013	39500	14000	980
2014	35600	13100	917
2016	33000	12352	2599

Goat breeding, especially the productions of “kıl keçisi” (a special goat species), is an important source for livelihood of peasants. Most of goat breeding and production activities are in Yaylaköy village. Also, goat breeding activities exist in Salman, Küçükbahçe, Eğlenhoca and Mordoğan village. However, peasants declare that the goat breeding, milk fertility, and local production such as “Kelle” cheese, “Kopanisti” cheese, goat hair and goat milk have decreased, depending on the significant narrowing down of grazing lands because of the wind farms and industrial olive production. Provincial Agriculture Directorate data show that the goat production has increased since 1996, in contrast to villagers claim. However, it is clearly seen that milk production has significantly decreased, though the number of milk goats has increased by years, except from 2016. According to 2016 data, there is an extreme increase in milk production although milked goat decreased between 2014 and 2016 (Table 5.3.).

Moreover, there are local fishery activities in six neighborhoods currently. The number of registered members of cooperatives is 243 (Table 5.4.). The whole cooperatives are located in the East of the Peninsula. According to TUIK data in 1998 (see IZTECH Analytical Research Report 2015, 70), there were 248 households doing

fishery in 13 villages (almost whole villages). The situation shows that the fishery activities ended in the West of the Peninsula where fish farms are located densely.

Table 5. 4. Aquacultural Production Cooperatives in Karaburun Peninsula

(Source: Karaburun Directorate of Agriculture 2018)

Port/Shelter Name	Location	Number of Members
Merkez Aquaculture Cooperative	Centre Port	40
Saip Aquaculture Cooperative	Saipaltı Fishing Port	38
İnecik Aquaculture Cooperative	İnecik Fishing Port	38
Ambarseki Aquaculture Cooperative	Eşendere Fishing Port	36
Mordoğan Aquaculture Cooperative	Mordoğan 1 and 2 numbered Fishing Port	56
Tepeboz Aquaculture Cooperative	Yeniliman Fishing Port	35

5.2. Natural Characteristics: Karaburun Peninsula as a Unique Natural Area

According to reports about biodiversity of Karaburun Peninsula provided by Karaburun City Council (2014), there are 384 plant species including 15 endemic, 4 rare, 21 species conserved by UICN, and 5 species conserved by CITES contract. Thanks to the topography and climate, there are three different rare vegetation in the Peninsula as forest, maquis and garrigue. They are available for agricultural production and breeding due to the fertility of vegetation and soil (Yiğiter Sarıçam, 2007, 150). Also, there are 67 medicinal herbs and plants such as wild lavender, thyme, caper, sade especially on hills and valleys (Emekli and Soykan 2008).

Marine ecology is valuable with Posidonia sea grasses conserved by Bern Convention, as well. The species provides oxygen stocks, protection, and shelter for marine animals (Karaburun City Council, 2014). Posidonia sea grasses in the North of the Peninsula and Mordoğan (Yeniliman – Kanlıkaya) were defined as less damaged areas; and, Karaburun Peninsula was announced as a reference area for Posidonia sea grasses between 2000 and 2003 (Dural, 2014 see Karaburun City Council, 2014).

Besides rich flora and fauna, the natural habitat of Karaburun Peninsula includes significant biodiversity. Thanks to rare and endemic vegetation such as maquis and frigana, some wild species can live in the Peninsula such as wolf, fox and wild boar (Expert Report about the Proposal of Lodos Energy Company, 2019). Moreover, the area is a biological reserve with mammals and 204 land and marine bird species including endangered species (Table 5.5.).

Table 5. 5. Some Major Species in Karaburun Peninsula

(Source: Eken 1997 see Nurlu, Gökçek, Yılmaz, and Erdem 2003, 227)

Marine Mammals	Mediterranean Monk Seal (<i>Monachus Monachus</i>)	R/B
	Eurasian Otter (<i>Lutra Lutra</i>)	R/B
Marine Birds	Audouin's Gull (<i>Larus audouinii</i>)	R/B
	Shag (<i>Phalacrocorax aristotelisdesmarestii</i>)	R/B (in Ildiri Bay)
	Yellow-legged Gull (<i>Larus cachinnans</i>)	R/B
Birds of Prey	Lesser Kestrel (<i>Falco naumanni</i>)	SM/B
	Golden Eagle (<i>Aquila chrysaetos</i>)	R/B
	Short-toed Eagle (<i>Circaetus gallicus</i>)	SM/B
	Peregrine Falcon (<i>Falco peregrinus</i>)	SM/B
	Lanner (<i>Falco biarmicus</i>)	R/B
	Eleonora's Falcon (<i>Falco eleonora</i>)	SM
	Bonelli's Eagle (<i>Hieraaetus fasciatus</i>)	R (breeding not confirmed)
Passerines	Rüppell's Warbler (<i>Sylvia rueppelli</i>)	SM/B
	Olive-tree Warbler (<i>Hippolais olivetorum</i>)	SM/B
	Cretzschmar's Bunting (<i>Emberiza caesia</i>)	SM (breeding not confirmed)

R: Resident; B: Breeding; SM: Summer migrant.

Some significant bird species classified as endangered predatory species are *Aquila Chrysaetos*, *Buteo rufinus*, *Falco Eleonora* and *Falco naumanii*, and rare marine species are Audouin's gull (called Ada Martısı in Turkish) and *Phalacrocorax Aritotellis* in the Peninsula (Karaburun City Council, 2014). Especially, the most important habitat areas for the species are Iris pond, Gerence gulf and Bozköy Village with their surroundings. However, the birds are found in whole of the Peninsula due to dense maquis and forests (Yiğiter Sarıçam 2007, 137-140). Besides the Peninsula is a transfer point for migratory birds. The coasts of the Peninsula are across to Foça and Çeşme which host endangered birds conserved by international contracts. Thus, the possibility of the actual significant bird number is high in the Peninsula (Appendix B). Furthermore, there are important and rare bat species (up to 21 species) under international conservation (Appendix C).

Mediterranean Monk Seal living in the coastal waters of Karaburun Peninsula is one of the important endangered species conserved under the BERN contracts. The endangered species are still living in Turkey's Coasts, but the number of species decreased half in 20 years (Güçlüsoy et al. 2004, 209). They live on the coasts of Edirne, Çanakkale, Balıkesir, and Izmir. The number of sights is more in the Southern Aegean than other regions and the Northern Aegean Sea. Among of the locations, sights frequency is significant for Karaburun Peninsula (with 7-12 reports about Mediterranean Monk Seal in June 1995 and 1996) and Gelibolu (Öztürk 1998 see Güçlüsoy et al 2004, 203). The sights were reported from the mid-1960s to mid-1990s continuously (see Güçlüsoy et al. 2004, 203). And the sights reached up to 20 some month in 2001 (see Yiğiter Sarıçam 2007, 123). The rocky coasts of the Peninsula present suitable sheltering geographies with cave formations (see Güçlüsoy et al. 2004, 203).

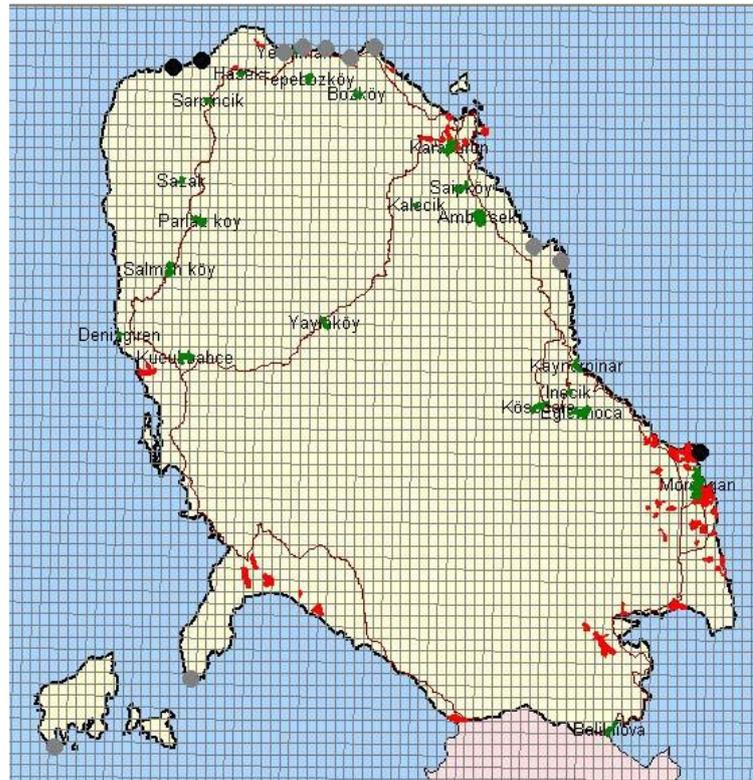


Figure 5. 10. Breeding Caves of the Mediterranean Monk Seal, and Settlement Areas in Karaburun Peninsula

(Source: Yiğiter Sarıçam 2007, 13)

The caves defined as breeding caves or possible breeding and living caves in Figure 5.10 by Yiğiter Sarıçam 2007. The most sights about Mediterranean Monk Seals

are in Mordoğan, Ayıbalığı gulf (it means Seal gulf). There is also a breeding cave. Fishery and diving activities are prohibited in a part of the gulf. However, the area has more human activities and housing with secondary houses and tourism facilities.

5.2.1. Natural protection areas which are legally approved

Almost whole coastal areas are covered by natural protection areas, covering approximately 15% of the Peninsula. The 85% of the protection areas are first degree natural protection areas. There is only one first degree archeological site accompanied with first degree natural protection areas in Karaburun (Figure 5.11.).



Figure 5. 11. Types and Status of Protection Areas in Karaburun Peninsula

(Source: Digital data of 2014-2023 Izmir Manisa Master Plan)

The natural and archeological protection areas were mostly approved legally in 1992. However, they are seen in 1989 Çeşme – Karaburun Coastal Plan. In 1995, two islands located between Karaburun and Çeşme were approved legally as protection area. Two small islands located at the North of the Peninsula were legally approved in 1998.

The natural protection area located in Karaburun City Centre, İskele, Saip and Amberseki neighborhoods were approved in 2000s (Figure 5.12.). It is seen that the registrations of natural protection areas in Karaburun Peninsula began by the neoliberalization period.

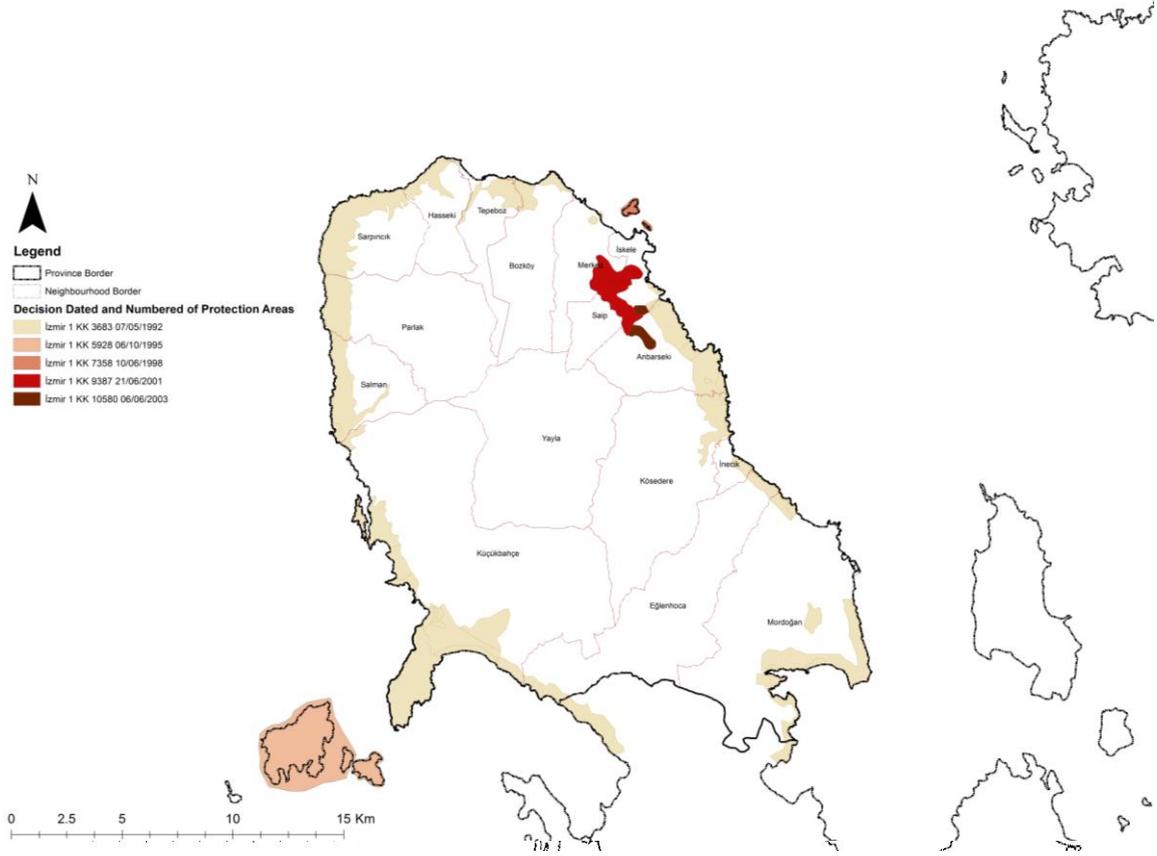


Figure 5. 12. Decision Dates and Numbers of Protection Areas

(Source: Digital data of 2014-2023 Izmir Manisa Master Plan)

5.2.2. Conservation Proposals

The Peninsula is a significant habitat for especially endangered birds, mammals, and marine species. Besides, it has valuable areas such as fertile agricultural areas, pastures and olive groves creating a cultural landscape with the relations between local people and nature. The features of the Peninsula must be conserved regarding its ecological integrity and cultural features. Thus, the Peninsula was defined as Important Nature Area by Doğa derneği. It covers totally an area of 87. 274 hectares (Figure 5.13.).

Also, there is a biosphere reserve area proposal for Karaburun Peninsula. Biosphere reserve area programme was introduced by UNESCO. This conservation type

is claimed that it handles environmental conservation with economic activities for a sustainable conservation. The programme aims to conserve biodiversity with a sustainable development.

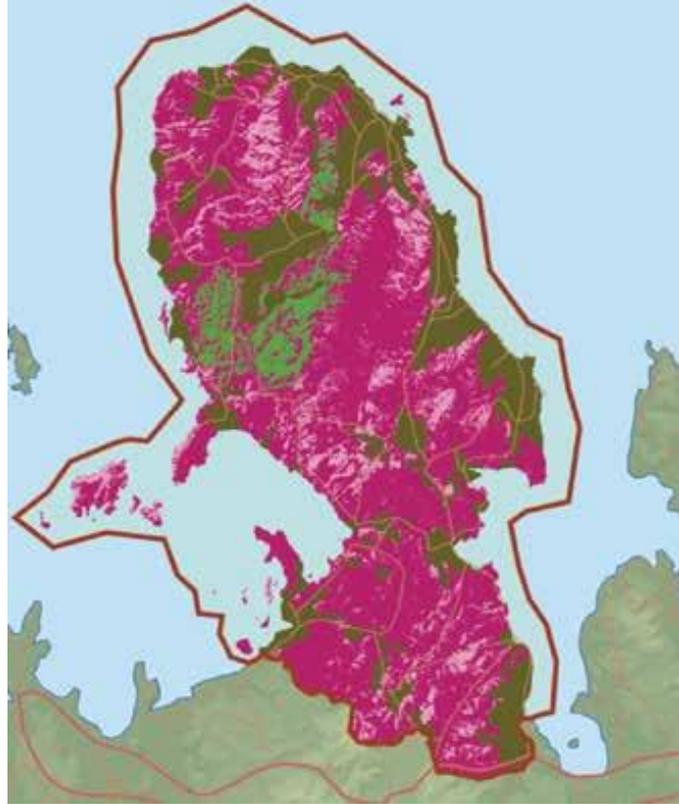


Figure 5. 13. Boundaries of Important Nature Area in Karaburun Peninsula and Ildırı (Source: Urla - Çeşme - Karaburun Peninsula Sustainable Development Strategy Report 2012)

There is only one example in Turkey which is Camili (Macahel) Village, Artvin. In the proposal for Karaburun, some areas were defined as core conservation areas (8%; without any activities), some as transition areas (48%; with only conservation activities), and some as development areas (44%), by taking into consideration socio-economic activities, conservation areas for important species and important sea areas (Figure 5.14.). Especially, the Project is based on breeding and living areas of audouin's gull (*Ada Martısı*) and Mediterranean Monk Seals, and frigana and scrub vegetation. It is defined that the 56% of the Peninsula has dense or high density of vegetation (Yiğiter Sarıçam, 2007). The project emphasizes that development areas are large, and they are important for local economic activities and society. On the other hand, the investments in these areas are proposed to continue by allocation after the decision of the proposal. The proposal also states that it should be considered that the local activity would not be sustained

because of the investments such as wind energy production and fish farms. Besides local production, the proposal would support the investments to be limited in development areas.

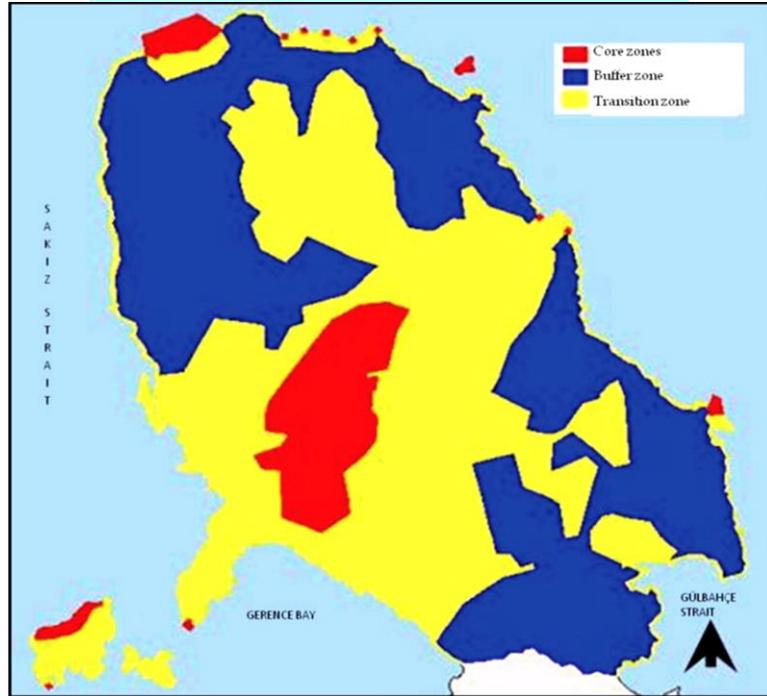


Figure 5. 14. Proposal of Biosphere Reserve Area in Karaburun Peninsula
(Source: Yiğiter Sarıçam and Erdem 2010, 47)

5.2.3. Announcement of Special Environmental Protection Region

The Karaburun City Council has been endeavoring for the approval of the Special Environment Protection Region for Karaburun Peninsula. The Provincial Directorate of Environment and Urbanization depending on Izmir governorship prepared a pre-report for Special Environmental Protection Region proposal for Karaburun Peninsula in 2013. The report concludes that the West coasts and the seas of the Karaburun should be announced as a special environment protection area. The process began and then Karaburun City Council informed to the Ministry about social, cultural and ecological values of the Peninsula with the proposal of Biosphere Reserve Area (Yiğiter Sarıçam and Erdem, 2010). Pre-proposal for Special Environment Protection Region for Karaburun and Biosphere Reserve Area proposals didn't overlap. Also, pre-proposal area has only pressures from secondary houses and housing rather than fish farms and wind farms. The proposal did not include the important areas which conflict to the investments.

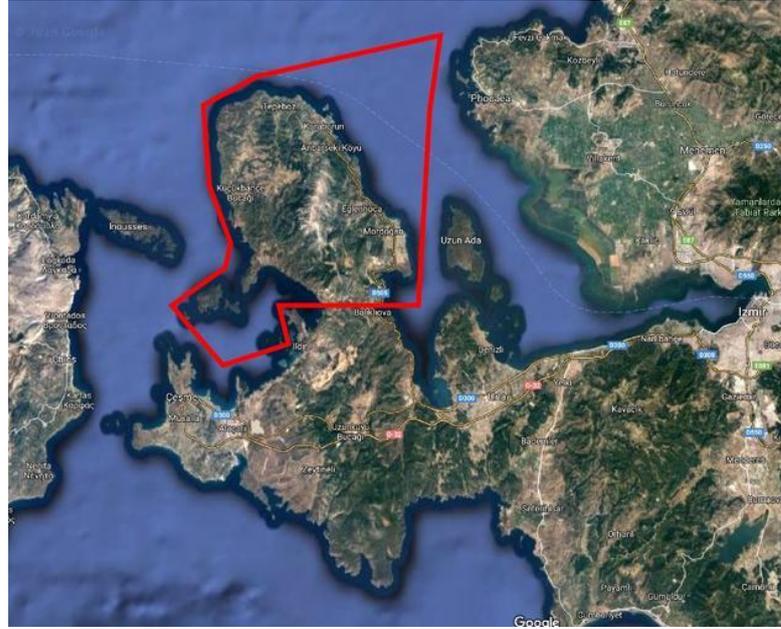


Figure 5. 15. Ildırı – Karaburun Special Environmental Protection Region
(Source: Ministry of Urbanization Official Website, Access Date: 2019)

After six years, just before the general local government elections on 31th March 2019, Karaburun - Ildırı Special Environmental Protection Region was announced officially by the decision of the presidency of the Republic in 15th March 2019. The previous version of the proposal only included in the East coast of the Peninsula. However, the protection decision includes the whole the Peninsula and the sea along Foça to Ildırı (Figure 5.15). The Special Environmental Protection Region is more comprehensive as it covers whole Peninsula and the seas. However, this decision will not prevent the natural degradation in the Peninsula. Even though bureaucratic process became harder than before, the legal framework and recent regulations about the special environmental protection regions make possible to use them for sustainable energy production and tourism activities. The possible investments in the specific areas are more limited in biosphere reserve area proposal especially for core and transition areas. Also, the authority of the whole Peninsula was rescaled; and whole authorization of approval, control, plan was transferred to Ministry of Environment and Urbanization with the decision. According to the law, the Ministry has the authority to prepare a management plan and environmental plan with defining approval and prohibited activities at different scales in the new naturalized boundaries.

CHAPTER 6

COMMODIFICATION OF NATURE IN KARABURUN PENINSULA

Karaburun Peninsula, and its significant nature have become subjected to market after 1990. On the other hand, conservation policies and legal framework were created to pave the way of commodification of biophysical nature which were not previously encompassed into capital accumulation. The process began with the development of secondary houses in 1990s. Then, industrial agriculture activities, fish farm activities, wind farms and quarries were emerged and increased in 2000s. The activities have been intensified with neoliberal policies and regulations such as privatization of energy market, allocation of natural areas for tourism and energy investments, and extension of the use rights on communal-owned or state-owned natural areas. Generally, the investments are located on agricultural lands, grazing lands and registered pasture areas, forests, natural protection areas and seas under international conservation. Figure 6.1. presents the overlap between natural areas, investments and parcels associated with transferred property rights.

In this part, development of the investments, their legal supports and strategies, reregulation and deregulation mechanisms, privatization of natural areas, lawsuit processes and transferring property rights in the Peninsula are introduced. Accordingly, “actual existing neoliberalism” in Karaburun Peninsula is examined.

6.1. Industrial Olive Production

Pasture areas defined in plans and used for grazing by local people in the North of the Peninsula were enclosed for industrial agricultural production. The lands were not registered as pasture areas (Figure 6.2.). The registration process began a short time ago. Lastly, 6600 decares agricultural land area was registered as pasture areas in Küçükbahçe village, on the South of the Peninsula according to data gained by Karaburun Cadastral Unit (Figure 6.2.).

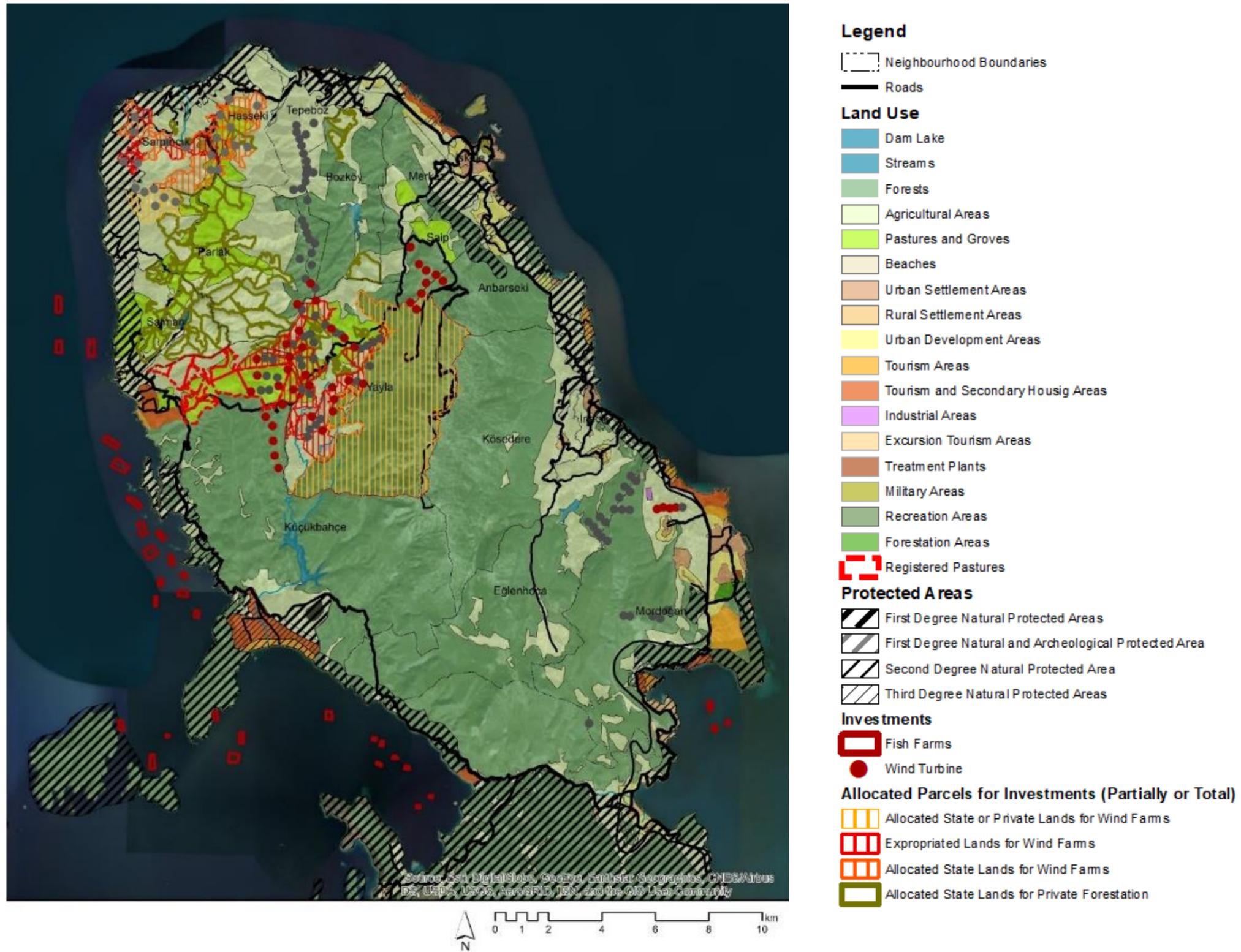


Figure 6. 1. Existing Threats and Land Use in Karaburun Peninsula

(Produced by Analyzing and Processing the Digital data of 2014-2023 Izmir Manisa Master Plan, 2018 EPDK Wind Turbines KML data, 2018 Listed Plot data by Karaburun Directorate of National Estate and Karaburun Cadastral Unit by using ArcGIS)

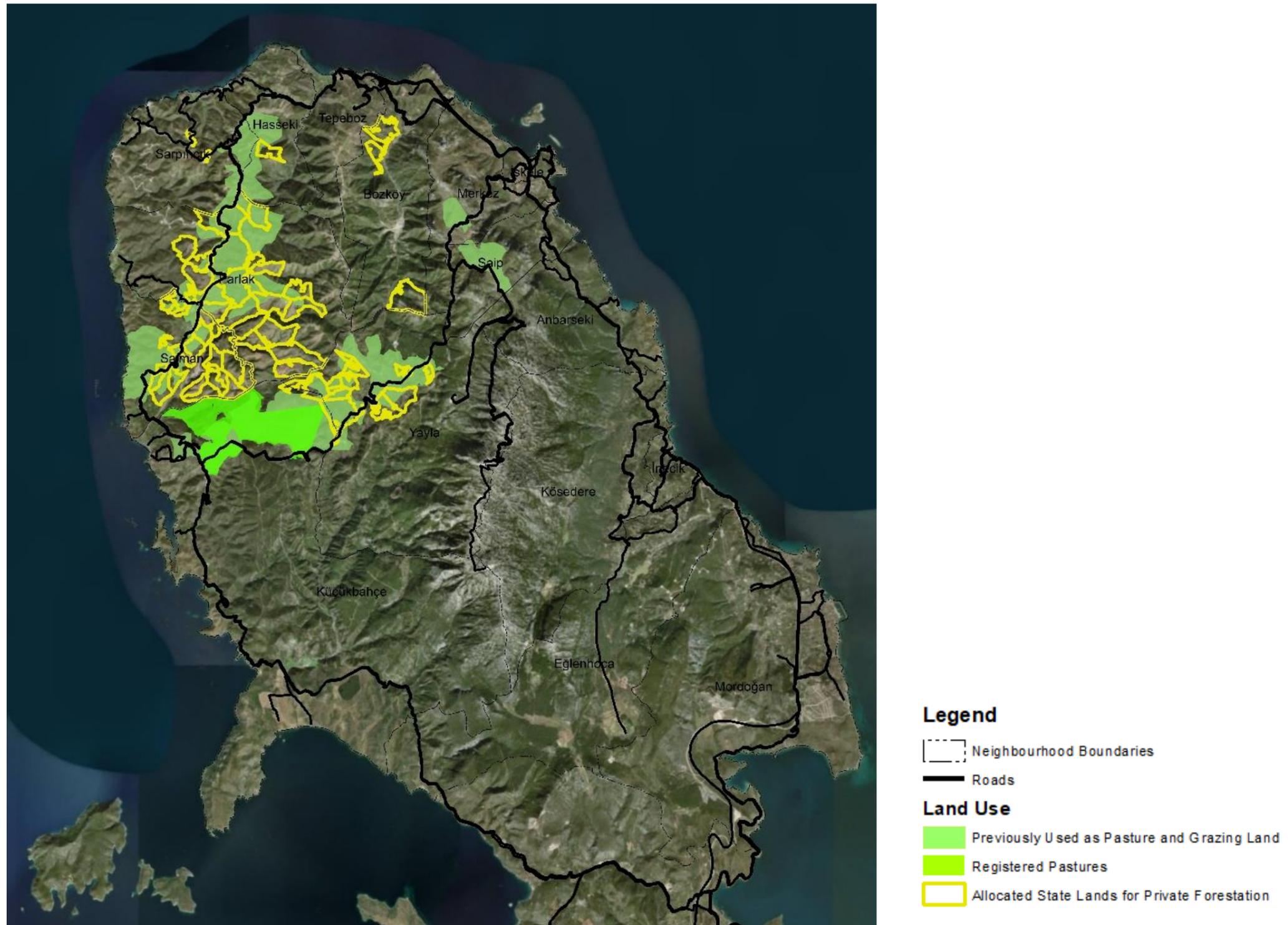


Figure 6. 2. Industrial Olive Groves and Pastures

(Produced by Analyzing and Processing the Digital Data of 2014-2023 Izmir Manisa Master Plan, 2018 Listed Plot Data by Karaburun Directorate of National Estate and Karaburun Cadastral Unit by using ArcGIS)

The pastures enclosed for plantation of olive trees are seen as cultivated agriculture area in Izmir Land Classification project (2013) and 1/25.000 scaled Izmir West Master Plan (2018) because their current situations were defined and shown in the projects. The fields were turned into olive groves by the allocation of Treasury lands for private forestation thanks to 1994 and 2003 Forestation regulation which allow private forestation on fertile agricultural lands. According to Google Earth Satellite photos taken each year, the plantation began in 2006. The situation is confirmed by increasing olive trees and agricultural lands after 2006 (Figure 5.5. and 5.8.). List of the allocated parcels for private forestation (Appendix F) shows that the properties were leased to private or unlimited companies. The allocated land for private forestation is totally 1330.78 ha which is 3,51% of the whole Peninsula. The parcels which are related to allocation process are shown in Figure 6.1.; 61.2% part of the parcels were allocated. Also, it was observed in Google Earth Satellite photos taken successively and field survey that almost all the lands were converted into olive groves. The pasture vegetation was removed for plantation of olive groves.



Figure 6. 3. Enclosed Olive Groves in Parlak Village
(Field Survey, October 2018)



Figure 6. 4. Olive Groves in Northern Pastures of the Peninsula
(Field Survey, October 2018)

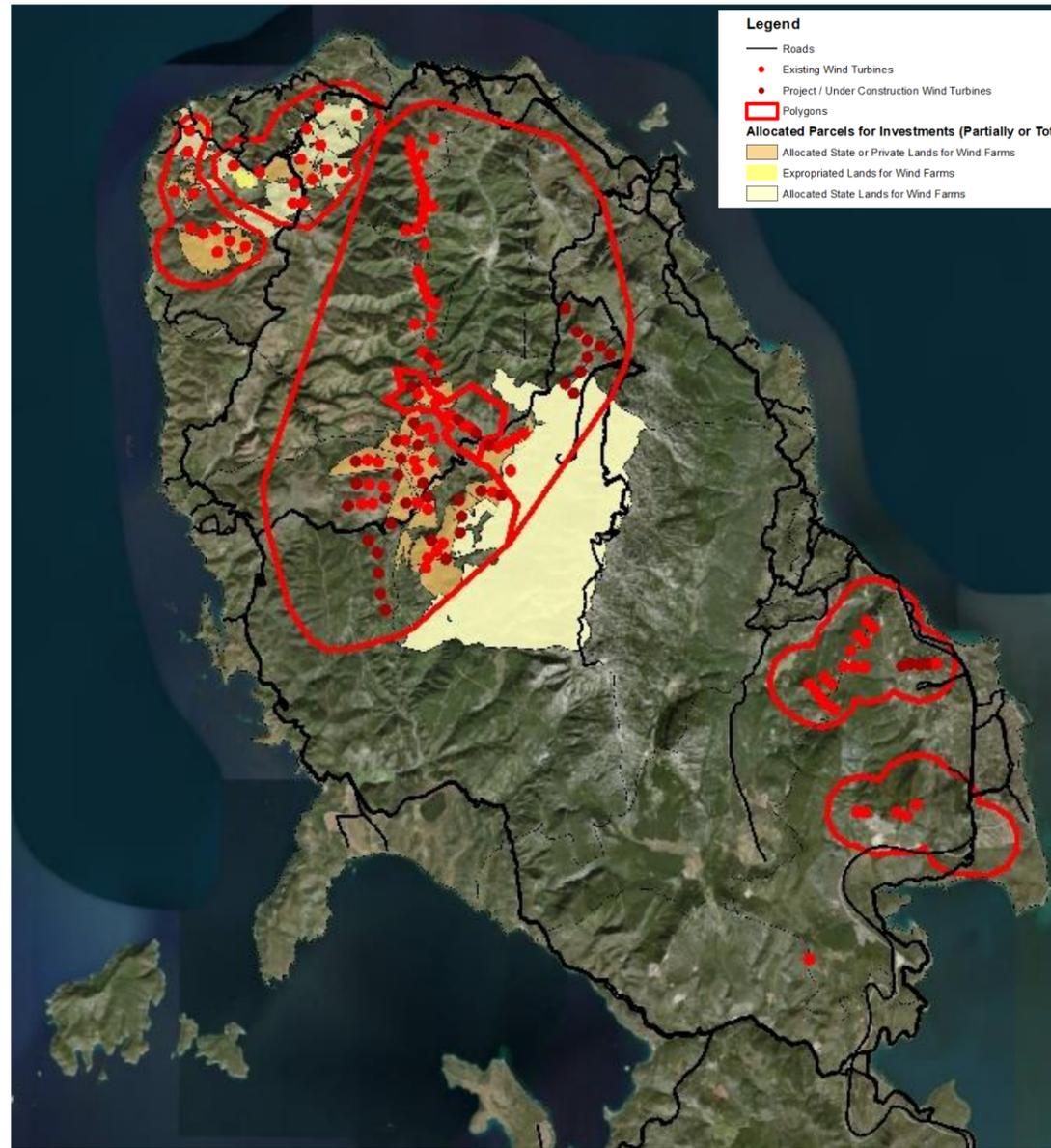
Moreover, the enclosure of olive groves prevented the access to grazing lands. Therefore, unregistered pastures, which are Treasury property and common lands used by villagers and goat breeders, were privatized for industrial olive production. The goat breeders can't use the lands for grazing their animals in here, in Parlak, Salman and Yayla villages (Figure 6.3 and 6.4).

6.2. Sustainable Energy Investments

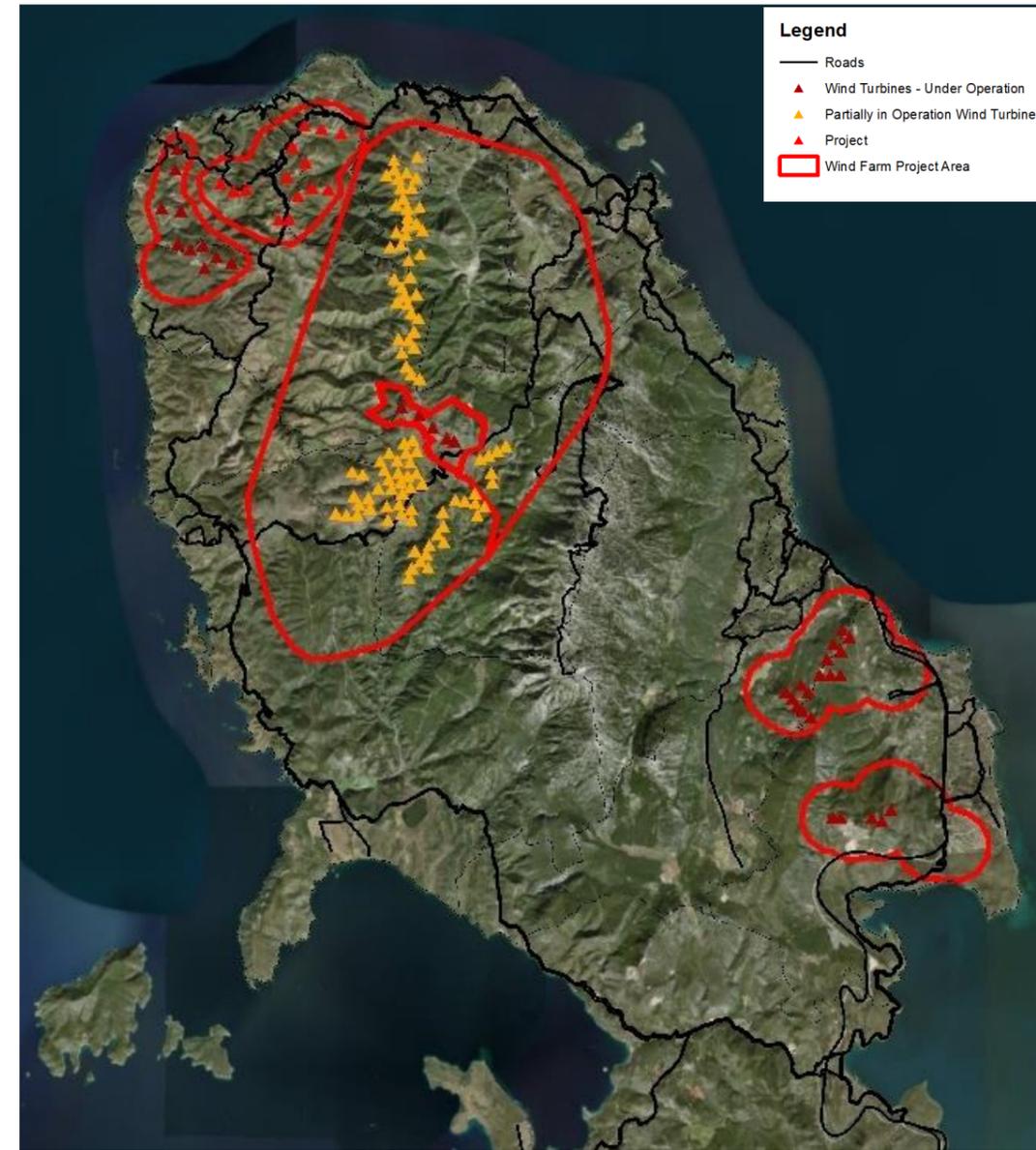
There are six wind farms operated by private companies in Karaburun Peninsula: Karaburun Wind farm (Lodos Energy), Yaylaköy Wind Farm (Yaylaköy Energy), Mordoğan Wind farm (Ayen Energy), Sarpıncık Wind farm (Çalık Energy), Mordoğan Wind farm (Egenda Energy) and Salman Wind farm (Öres - Fina Energy). According to the EPDK YEK list (2018), 100 wind turbines are licensed (Table 6.1). However, there are 146 turbines, which are still in projects, under operation and ongoing in Karaburun Peninsula concerning EPDK digital data in 2018 (Figure 6.5.). The project areas of wind farms cover about 40% of the total surface area of the Peninsula (Counted by ArcGIS analysis and processing of EPDK Digital Data 2018).

Most constructions of wind farms have been completed. Nonetheless, there are considerable amounts of projects. The situation of wind turbines was defined and confirmed by EPDK digital data, EPDK YEK list and also Google Earth Satellite photo (Table 6.1; Figure 6.5.). Wind power generation in the Peninsula begun in 2013. Lodos energy has the highest number with totally 87 turbines, 50 of them are licensed, in Yaylaköy, Tepeboz, Bozköy, Center, Saip and Ambarseki neighborhoods. The number of turbines in the project is 37; however, the construction of some has just begun. Yaylaköy energy has 8 turbines in the middle of the Lodos Energy wind farm project areas. 5 of them have been operated since 2016, the other three are still at the project stage. Çalık Energy have 13 turbines in Sarpıncık village, 3 of them are not licensed, but their constructions were completed. The turbines began to produce electricity in 2016. The oldest wind farm belongs to Ayen Energy with 20 licensed wind turbines in Mordoğan. The wind farm started to work in 2013. Fina Energy has 10 licensed turbines in Salman village which began to operate in 2014. However, Karaburun City Council members and villagers state that some of the wind turbines began operating previously; and project proposals have continued since 2005. The construction of wind turbines began in 2008 (see Özçam 2017, 97). This means that companies had started to construct wind turbines without fulfilling legal procedures.

The wind farms are located on forests, agricultural lands, natural protection areas and pastures (Figure 6.1.). In other words, all of the wind turbines were constructed on the fertile lands such as fields, pastures, vineyards, forests or raw soil (Figure 6.1.; Appendix G). Somewhere as Sarpıncık and Yaylaköy Villages, the wind turbines are located close to settlement areas (Figure 6.7.). Also, the lands were enclosed and the access of local people was blocked. The wind farms are located on Treasury lands, forest lands (properties of Ministry of Forest), and private lands. Some of the projects have been realized by allocating only forest lands or Treasury lands. However, private properties which are in project areas were firstly expropriated, and then leased to private sectors with the support of Expropriation Law (no. 2942). The parcels related to allocation or expropriation process are seen partially in Figure 6.5. and Appendix G. However, the data about some parcels which are included in project areas of the wind farms, especially in Mordoğan, are not accessible. Also, the data about property ownership and size of allocated part of some parcels are not accessible.



(a)



(b)

Figure 6. 5. Wind Farms, Turbines and Associated Parcels in 2016 (b) and 2018 (a)

(Produced by Analyzing and Processing, 2018 EPDK Wind Turbines KML data, 2018 Listed Plot data by Karaburun Directorate of National Estate and Karaburun Cadastral Unit 2018 by using ArcGIS, Özçam 2016 data)

Table 6. 1. Wind Farms in Karaburun Peninsula

(Source: EPDK 2018)

License No	Private Companies	Wind Farm Name	Number of Wind Turbines	Energy Production of Previous Year (kWh)	Start Date of Production
EÜ/1622-13/1186	Ayen Enerji A.Ş.	Mordoğan RES	20	83,862,550	9/27/2013
EÜ/1622-15/1188	Çalık Rüzgar Enerjisi Elektrik Üretim A.Ş.	Sarpıncık RES	10	5,515,010	10/30/2016
EÜ/1622-8/1181	Egenda Ege Enerji Üretim A.Ş.	Mordoğan RES	5	27,130,860	6/24/2016
EÜ/3382-14/2059	Lodos Karaburun Elektrik Üretim A.Ş.	Karaburun RES	50	384,763,440	9/6/2013
EÜ/3446-5/2091	Öres Elektrik Üretim A.Ş.	Salman RES	10	82,851,230	5/30/2014
EÜ/1622-1/1174	Yaylaköy RES Elektrik Üretim A.Ş.	Yaylaköy RES	5	32,382,190	3/25/2016

According to accessible data, it was detected that 80 parcels were subject to expropriation or allocation, but there were more parcels related to these procedures. According to existing available data, 272 hectares of 19 parcels were allocated to, and expropriated for, wind energy firms (Appendix G).

The enactment of the Law on Usage of Renewable Energy Resources to Generate Electrical Energy (no. 5346) in 2005 made possible to allocate Treasury and forest lands for renewable energy investments. With 2008 amendments, renewable energy investments and infrastructures began to be permitted in pasture areas. The reregulations in Forest and Pasture laws after the 2000s have supported the regulations and the construction of wind farms. The wind farm project proposals started in 2005, and constructions began in 2008 in the Peninsula. Then followed the new law and reregulation processes, in a way of promoting such projects.

Besides new laws and reregulations, 1/5000 and 1/1000 scaled development and implementation plans, their revisions and revisions about upper scale plans were prepared for wind farm projects. Also, there are plans for the new projects or to increase the

capacity of existing wind farms. The investments are located on the areas defined in upper scale plans as agriculture lands, pasture lands or forests. Whereas, the implementation plans recommend wind farms including their concomitant infrastructures and roads on these lands. Therefore, each plan about the wind farms exemplifies a specific reregulation. The last and most crucial examples are plans for Karaburun wind farm and Sarpıncık wind farm located on the protection area (Figure 6.1.; Appendix D; Appendix E).

Moreover, the environmental impact assessment report decisions on wind farms are generally positive, or decreed as unnecessary, without taking into consideration the unique ecology of the Peninsula. Firstly, in 2005, a decision that environmental impact assessment report was unnecessary was given for 166 wind turbines of Lodos Energy (Environmental Assessment Report for Added Capacity of Lodos Wind Farm, Official Website of Ministry of Environment and Urbanization, 2018). In 2015, another similar decision was given for 13 wind turbines around Hasseki, Sarpıncık and Kızılcadağ villages (the Decision on Unnecessity of Environmental Impact Assessment Report, Official Website of Ministry of Environment and Urbanization, 2018).

The Karaburun City Council and civil society have commenced many suits against the existing or proposed wind farms, environmental assessment report on them, the decisions that the environmental assessment report was unnecessary for wind farm projects and the plans of the wind farms. These efforts succeeded to stall some projects and cancel some environmental assessment reports. However, companies continue constructions and operations of the projects, even though the legal processes are not completed. Table 6.2. shows that lawsuits about wind farms with their dates, process and results. Thus, it is seen that most of the lawsuit continue against Sarpıncık wind farm, Salman Wind farm, etc., but the wind farms have been constructed and operated.

In addition, there are new solar energy investments as “sustainable energy” attempted in the Peninsula. The 1/5000 and 1/1000 scaled development and implementation plans of the solar energy investment were approved in wild life protection and improvement area in Küçükbahçe, even after the decree of Special Environment Protection Region.

One of the long lawsuit processes is against to the projects of Lodos energy company in Yaylaköy. The lawsuit started in 2014 against the decision that environmental assessment report was unnecessary in 2005. Even 50 wind turbines operate, and the

lawsuit process continues for newly purposed 37 turbines in the current time. Environmental assessment reports took positive decisions three times for the projects, but these decisions were canceled thanks to the objections of the Karaburun City Council. Lastly, as fourth, Karaburun city council commenced a suit to stop the execution of positive decision of environmental assessment reports for the proposed wind turbines around Pirenli mount, Kurkaya hill, Değirmentepe, Çataltepe, Mınıslı by Lodos Energy Company. It was announced on the web site of Ministry of Environment and Urbanization in 27th February 2018. Lawsuit petition claims that the environmental assessment report was prepared by disregarding the cumulative effect of the increasing capacity on natural, socio-economic and cultural environment in Karaburun Peninsula, thanks to the support of 2014 reregulation about environmental assessment regulation (see Chapter 3.2.). The project is located in forests, agricultural areas, olive groves, pastures, and also in private properties. Furthermore, the concomitant infrastructures of the projects with connections, roads and service areas have damaged the ecosystem. Also, they have blocked the local people's access to their agricultural and pasture areas. Thus, the projects threaten goat breeding and crop cultivation that are the source of living for local people via enclosure of the lands used as pastures.

Even though the lawsuit processes about environmental assessment reports continue, the second phase of 1/5000 and 1/1000 development and implementation plans were approved and notified in 2019. In the same way, the proposed turbines are located on agricultural lands, pastures and forests (Figure 6.1.). The Karaburun City Council objected to the plans in 2019 approved by the Ministry of Environment and Urbanization. After a while the announcement of plans, the expert report was completed. The expert report stated that environmental assessment report is insufficient to explain the damage of the increasing capacity, and decided to cancel the construction of some turbines (T51-T59) defined by the first phase of additional development and implementation plans for Karaburun Wind farm (Expert Report, 2019). The environmental assessment reports for the wind turbines brought positive decisions (Table 6.2.) although the ecological significance of the Peninsula. A part of the project area is located on agricultural and pasture area. Also, the project area has essential habitat for biodiversity with vegetation with high habitat value.

Table 6. 2. Lawsuit Processes Against to Wind Farms
(Produced by Using Karaburun City Council 2019 data)

Lawsuit Date	Project	Lawsuit No	Lawsuit Subject	Result
3/27/2014	LODOS KARABURUN RES	İzmir 2. Administrative Court 2014/541 E. - 2014/1724 K. - 2015/1236 E.-2015/4552 K. 2016/932 E.-2016/800 K.	The cancellation of the decision about "environmental assessment report is unnecessary" (no.177) in 05.08.2005	Lawsuit was rejected cause of time exceed. During appelatte procedure, state council cancelled the decision cause of missing assessment (missing information about participation of civil society to information meeting and announcement of suspend reports). Lawsuit restarted despite objection of the Court. Then, the lawsuit was rejected again cause of time exceed after documents were completed.
3/27/2014	LODOS KARABURUN RES	Ankara 8. Administrative Court 2014/1046 E. - 2015/857 K.	The cancellation of EÜ/3382-14/2059 licences which were given in 18.08.2011	Licences were canceled. During appelatte procedure, the decision was cancelled by state council. Arrangements about objection were approved. Cancellation of licences was approved again, and the decision became definite.
2/26/2015	SARPINCIK RES	İzmir 5. Administrative Court 2015/403 E. - 2015/1646 K.	The cancellation of the decision about "environmental assessment report is positive" (no.2) in 13.01.2015	The cancellation request was accepted. The positive decision was canceled. State Council canceled the Court's decision, and rejected lawsuit rigorously as closed any objections. The appelatte procedure were applied to Ministry of Justice. The petiation was rejected.
4/7/2015	EGENDA MORDOĞAN RES	İzmir 4. Administrative Court 2015/565 E. - 2017/159 K.	The cancellation about 1/1000 and 1/5000 scaled implementation plans (no. 16449) in 15.10.2014	The cancellation request was rejected. Appeal was requested. The request were approved. Plans were cancelled. Appelatte process continue.
5/11/2015	SARPINCIK RES	İzmir 1. Administrative Court 2015/738 E. - 2016/322 K.	The cancellation about 1/1000 and 1/5000 scaled implementation plans (approval date: 10.02.2015)	The cancellation was accepted. Plans were cancelled. Appelatte process continue.
7/13/2015	YAYLAKÖY RES	İzmir 5. Administrative Court. 2015/980 E. - 2017/652 K.	The cancellation about 1/1000 and 1/5000 scaled implementation plans (approval date: 10.02.2015)	The cancellation and appeal requests was rejected. Appelatte procedure about rejected appeal request continue.
7/29/2015	AYEN MORDOĞAN RES	İzmir 3. Administrative Court 2015/1152 E. - 2016/970 K.	The cancellation of the decision about "environmental assessment report is positive" (no. 3915) in 29.06.2015	The cancellation request was accepted. The positive decision was canceled. State council rejected the Court's decision cause of the insufficiency of commision of expert. The lawsuit process restarted. In 19.04.2018, experts done field surveys.

(cont. on next page)

Table 6. 2. (Continued)

9/17/2015	YAYLAKÖY RES	Danıştay 6.Dairesi 2015/8648 E. 2016/1626 K.	The cancellation about urgent expropriation decisions by Council of Ministries (no. 28987; approval date: 04. 2014; 2014/6039; 24.02.2014)	State Council rejected the lawsuit. Then, council of state plenary session of the chambers for administrative cases rejected lawsuit during appelatte procedure. The decision became definite.
9/17/2015	LODOS KARABURUN RES	Ankara 14. Admistrative Court 2015/2529 E. - 2016/3041 K.	The cancellation of EÜ/5639-1/3291 licences were given in 11/06/2015	The cancellation and appeal requests was rejected. Appelatte procedure about rejected appeal request continue.
12/4/2015	LODOS KARABURUN RES	İzmir 6. Admistrative Court 2015/481 E. - 2016/1337 K. - 2017/1222 E.-2018/59 K.	The cancellation of the decision about "environmental assessment report is positive" (no. 4022) in 05.11.2015	Company changed the coordinates old wind turbines, and took licences for them. The positive decision about environmental assessment report was cancelled. Then, the decision was rejected during appelatte procedure. However, it is decided that the cancellation of lawsuit because a new positive decision about environmental assessment report was approved in 18.04.2017
12/10/2015	SARPINCIK RES	İzmir 6. Admistrative Court 2015/596 E. - 2016/932 K.	The cancellation of the decision about "environmental assessment report is positive" (no. 4045) in 20.11.2015	The Court decided to stop operation. Then, the Court back down from the decision, and removed the stop operation decision. And the viewing decision also was removed and lawsuit was cancelled. During appelatte procedure, the lawsuit was rejected as closed any objections by state council.
12/30/2016	AYEN MORDOĞAN RES	İzmir 6. Admistrative Court 2016/1757 E. - 2016/1903 K.	The cancellation of the decision about "environmental assessment report is positive" (no. 4407) in 30.11.2016	The cancellation was approved, the positive decioson were cancelled. Appelatte procedure continue.
5/17/2017	LODOS KARABURUN RES	İzmir 4. Admistrative Court 2017/888 E. - 2018/469 K.	The cancellation of the decision about "environmental assessment report is positive" (no. 4022) in 18.04.2017	Company applied for another environmental assessment report and the positive decion for the report was given. Thus, the cancellation of lawsuit was decided.
3/29/2018	LODOS KARABURUN RES	İzmir 3. Admistrative Court 2018/491 E.	The cancellation of the decision about "environmental assessment report is positive"(no. 4985) in 27.02.2018	The process continues. The experts were done viewing. The expert report was was resigned in 14.03.2019.

There are reptile species under conservation at the international scale. The report states that there are 101 bird species, which are under conservation at the global scale. Besides, it was determined that 6 bat species certainly lived, and 19 bat species possibly lived in the project area. Thus, wind turbines create a barrier to birds and bats which especially migrate by benefiting from thermal difference, and the wind turbines can cause bird kills in the area. The report also claims that the impacts of the wind power investments on flora can be decreased by ecological restoration, and the migrant birds can select, and be oriented, topographically more advantageous area near to the project area, instead of the location of wind turbines. The lawsuit petition asserts that such unrealistic explanations are made for the approval of the project (Environmental Assessment Report for Added Capacity of Lodos Wind Farm, Official Website of Ministry of Environment and Urbanization 2018; Expert Report 2019).

On the other hand, the project area covers some pasture areas which are also crucial for local people and their livelihood. The project on pasture areas in Yaylaköy - Tepeboz-Bozköy-Saip neighborhoods was approved, despite that an article of the Pasture Law (no. 4342) decrees that pastures cannot be a private property, and cannot be used except their function, or cannot be narrowed down. These settlements have almost half of total number of goats in Karaburun Peninsula. According to lawsuit petition, the wind turbines' locations were not only proposed in olive groves, pastures and agricultural areas but also in medium range protection zone of Karareis pond and in far range protection zone of Salman Pond. Besides, the lawsuit petition asserts that the project area constructed in some olive groves even though the strict legislation about olive groves as it delineated by the Reclamation of Olive Cultivation and Budding of Wild Olive Trees Law (no. 3573). Although the legislation mandates that olive groves cannot be decreased or any infrastructure except olive oil facilities cannot be constructed in these areas, environmental assessment report decided that expectation about fertility is unnecessary for the groves because the olive groves were abandoned. Finally, the Energy Market Regulatory Authority decided to approve operations of these projects for 40 years on 1st March 2018. Then, the expropriation decision for the private properties in the project area was taken on 29th March 2018, based on "public interest". Currently, the expropriation and the constructions of projects continue, although the lawsuit processes about new environmental assessment reports and cancellation of the plans have not been completed

yet. Thus, deregulation practices occurred with the illicit decisions and maintenance of the process without certain legal decisions.

On the other hand, some conflicts between wind energy producers and industrial olive producers appear because of the re-allocation of the properties and construction attempts for wind turbines on olive groves, which had been planted by the allocation of Treasury lands (Figure 6.9). The new wind turbines in Sarpıncık wind farm were constructed as against to the Reclamation of Olive Cultivation and Budding of Wild Olive Trees Law (no. 3573). Olive groves had been previously located in the Treasury lands allocated for private forestation, but they have been partly re-allocated for the wind farm project. Thus, 322 olive trees were cut by violating the law having stipulated the protection of olive groves. Following the request for their cancelation, the 1/5000 and 1/1000 scaled plans were canceled, and the operation was stopped in 2016. However, the appellate procedure has been continuing since 2016 (Hürriyet 01.04.2018; Table 6.2.).



Figure 6. 6. View of Wind Turbines on the Mounts of Yaylaköy
(Field Survey, December 2018)



Figure 6. 7. Wind Turbines near to Sarpıncık Village
(Field Survey, October 2018)



Figure 6. 8. Enclosed Wind Farm in Sarpıncık
(Field Survey, October 2018)



Figure 6. 9. Wind Turbines under Construction in Olive Groves
(Field Survey, October 2018)

Another legal case occurred because Ayen Energy Company requested to increase the capacity of wind farm in Mordoğan. The Karaburun City Council objected to the positive decision of the environmental assessment report, and applied to the Environment and Urbanization Ministry twice in 2016. The execution of the positive decision was stopped, on the basis of the 10th October 2017 dated decision of the expert report. The reasons for stopping this decision were similar to the Lodos Energy case. According to the expert report, the project area is a potential area for the improvement of the forest area included Turkish pine. Also, the area is covered by three important nature areas which are possible to hold endemic and rare species. Moreover, the area is located in Mordoğan pond sanctuary preservation zone and far and medium-range preservation zone. For these reasons, the expert report emphasizes the necessity of accounting cumulative impacts of wind farms on the ecosystem. The lawsuit decision concludes that the environmental assessment is not compatible with the law. The process still continues.

In conclusion, neoliberalisation of nature in the Peninsula has been occurring by deregulation and reregulation, but in vigorously contested ways in the national and local contexts. As it was lastly witnessed in Yaylaköy, the village settlement was announced as “disaster zone” by a decree of the President of the Republic in order to block local people’s resistance but to open the way of wind power companies. Through this decree, as the Lodos Energy Company’s director declares to Yaylaköy people, “after 20 years there would remain even no village called Yaylaköy” (Akdemir 19.05.2019). For the decree on “disaster zone” requires the village to be evacuated and relocated.

6.3. Fish Farms

Marine biodiversity of the Peninsula is under the threat because of densely located fish farms on the West coasts of the Peninsula. The coasts have important habitat including biodiversity under international conservation such as Posidonia seagrasses or Mediterranean Monk Seal (Chapter 5.2.). Also, the shores of the Karaburun Peninsula are defined as Mediterranean Monk Seal Natural Habitat, and determined as a conservation area in the 1/ 100.000 scaled İzmir- Manisa Master Plan (İzmir- Manisa Master Plan Report 2013, 67). Moreover, the whole Karaburun Peninsula and its marine area have been announced as Special Environmental Protection Region in 2019 (Chapter 5.2.1.).

However, the shores are intensely used by fish farms mostly on the coasts of Küçükbahçe, Salman and Mordoğan Villages. According to the Karaburun City Council Report about the Agromey company's fish farms (2017), there are 14 private fish farm companies and 24 fish farm cages along Gerence gulf to Parlak village and Mordoğan coastals. On the other hand, the data gathered from the Karaburun Provincial Agricultural Directorate (2018) and Google Earth (2018) Satellite photos show that there are 10 private fish companies with 34 fish cages on the seas (Table 6.3.; Figure 6.14.). The productions of fish farms are exported to countries such as Japan and Russia (Karaburun Directorate of Agricultural 2018). Also, the companies (such as Agromey and Akuvatur incorporated companies) generally export aquacultural productions to other countries such as the Netherlands, Greece, United States, etc., and they have offices in these countries.

Table 6. 3. Aquacultural Production Companies in Karaburun Peninsula

(Source: Karaburun Directorate of Agricultural 2018)

Company	Production	Neighbourhood	Annual Production Amount (Ton)
Akuvatur Aquaculture	Perch - Bream - Red Sea Bream - Dentex - Pargus	Küçükbahçe	2050
Gümüşdoga Aquaculture	Perch - Bream	Küçükbahçe	5900
Kemal Fisheries	Perch - Bream - Tuna	Küçükbahçe	2800
Pelmin Aquaculture	Perch - Bream	Küçükbahçe	2000
Kılıç inc.	Tuna	Küçükbahçe	1840
İskandil Fish production	Perch - Bream	Mordoğan	300
Agromey Food and Forage	Perch - Bream	Küçükbahçe	20350
Abaloğlu Forage (Lezita)	Perch - Bream	Küçükbahçe	5900
Güven Fish Production inc.	Perch - Bream - Meagre	Mordoğan	600
Ertuğ Fish Production inc.	Perch - Bream - Mussels	Mordoğan	850

The development of the fish farms began previously, in the early neoliberal period. However, production activities of private companies were legalized with the 2003 revision in the Aquaculture Production Law. The law released to control and regulate the activities on coastal areas. Then, with the Protocol on Potential Areas for Aquaculture Work Facilities, Mordoğan and Küçükbahçe coasts and the North of Gerence gulf were defined as suitable areas for aquaculture production on 10.03.2008. So, local fishing was prohibited in these areas, while private companies were allowed to aquaculture production. Local people no longer use seas for fishery activities while private aquaculture companies enclose Peninsula's seas to export their products. The research by Emekli and Soykan (2008) defines the location of fish farms in the coasts. Also, it is observed that fish farms are located in the same areas during field survey. Besides, they had gradually increased between 2006 and 2018, as they are defined by analysing Google Earth Satellite photos (Figure 6.10;6.11; 6.12; 6.13.).



Figure 6. 10. Fish Farms in 2006
(Produced by Using Google Earth Pro 2018)

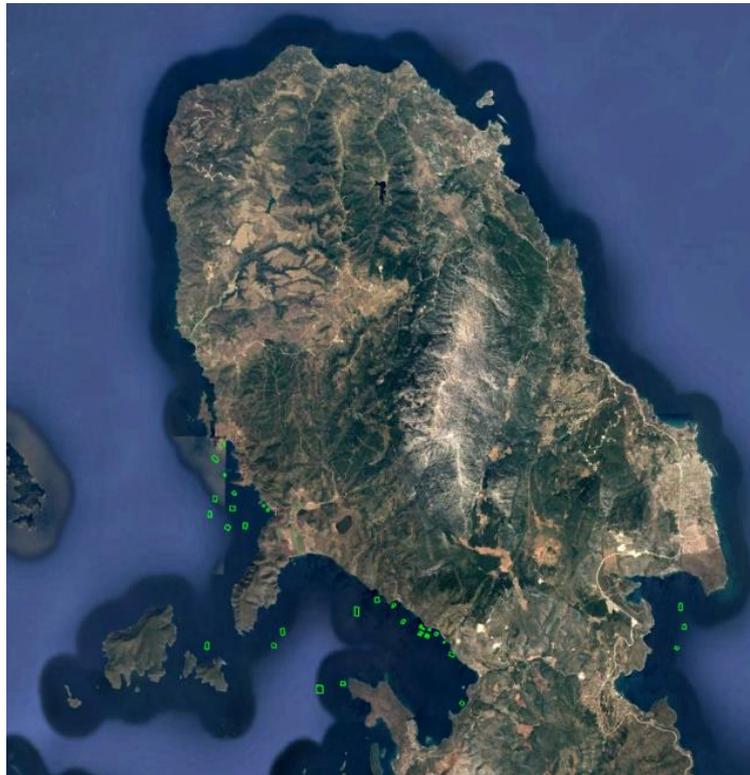


Figure 6. 11. Fish Farms in 2011
(Produced by Using Google Earth Pro 2018)



Figure 6. 12. Fish Farms in 2012
(Produced by Using Google Earth Pro 2018)



Figure 6. 13. Fish Farms in 2018
(Produced by Using Google Earth Pro 2018)

Besides increasing fish cages, logistic activities on the coasts which are generally in the first-degree natural protection areas (Figure 6.1.) have been intensified. The situation creates a conflict between conservation and use, and there are legal restrictions about logistic services located on natural protection areas. The logistic constructions are located in some villages such as Parlak village (Akuvatur) but there are not any logistic constructions on coastal areas. However, the coasts which are common lands and protected with Coastal law are used for operation of logistic activities and for parking of the logistic equipment (Figure 6.14 and 6.15).

In addition, the distance between the coasts and fish cages is less than the specified distance by laws (Figure 6.14). According to the associated regulation and the report of the Ministry of Environment and Urbanization (Guide for the Creation of a Sustainable and Environmental-Friendly Fish Farm System 2015), the perch and bream production facilities must be 1250 meters away from the coasts, and tuna production facilities must be 3000 meters far from the coasts. The distance reaches up to 2 kilometers for perch and bream facilities, and 4 kilometers for tuna production facilities in sensitive habitats such as the habitats of Posidonia sea grasses.

When the fish farms increased in the coastal areas, the Karaburun City Council and civil society objected against to the investments with law petitions and objections. The Karaburun City Council published assertions and justification reports about the objections. The assertions generally state environmental damage and socio-economic effects of the aquaculture investments such as the harms of these activities on natural conservation areas and tourism development of the Peninsula. Intensive aquaculture activities pollute the seas with antibiotics, forage lefts, death fishes, petrol or diesel oils etc., and harm sea grasses, quality and oxygen capacity of water, marine biodiversity, endangered species, and so on. There is also a new proposal about fish farms and a request to increase the fish farm capacities. The Karaburun City council continues to commence lawsuits against to these attempts. The projects generally were accepted with manipulating environmental assessment processes and reports.

Çamlı Forage and Stockfarming company applied to construct 2.500 tones capacity fish farms covering 98.000 m² surface in Küçükbahçe shores in 2014. The environmental assessment report and the project were approved in 2015.



Figure 6. 14. Fish Farms near to the Coasts of Salman Village
(Field Survey, October 2018)



Figure 6. 15. Logistic Services of Fish Farms at Coasts
(Field Survey, October 2018)

During the environmental impact assessment process, a meeting was arranged for the participation of local people as a legal requirement. The Karaburun City Council asserted that the objections of the local people, NGOs and CSOs were not recorded during the meeting, and in the report it was manipulated as “the civil society did not participate

the meeting”. Similar situation occurred about another environmental assessment process against to another company in 2014. It was recorded that civil society did not participate the information meeting, despite that local people declared objected to, and declared their negative opinions about, the investments. Batı - Seramik Company applied for 2.500 capacity fish farms covering 75.000 m² surface in Salman village’s coasts. Despite all objections, and that justification reports rejected the project the project was approved, based on the supportive decision of environmental impact assessment report. Thus, the fish farms spread out the North of the Peninsula, as well (City Council Report 2014).

Lastly, the attempts about spreading and moving fish farms to other remaining parts of the Peninsula coasts. The Karaburun City Council members assert that the private companies’ demands originate from increasing pollution and decreasing fertility of fish production in their current locations (Karaburun City Council 2019). In 2017, in the North East of Karaburun peninsula, Agromey Food and Forage Company which had already three fish farms in Gerence Gulf purposed to move Egemarine fish farms by enlarging the capacity to 11 times. The fish farm already covers 352.800 m² surface area and it has 7.500 tons of capacity. Project area covers 20 km coastal area of Saip, Kaynarpar, Karaburun City Center and Eşendere.

There are six aquaculture cooperatives in Karaburun, and four of them are included in the project area (Table 5.4.). The Karaburun City Council objected the project because the project areas will hinder and narrow the fish activity areas of the cooperatives. The project will impact negatively monk seal caves and beaches for tourism activities because it is near the caves and first-degree natural protection areas. In December 2017, the project was canceled because of high level of *Beggiatoa* bacteria mass and the inappropriate environmental condition for fish farms in project area. Egemarin fish farms had been extended previously, in 2014. Also, a tension occurred between local people and companies during the environmental impact assessment process (City Council Report 2014). Lastly, the proposal of moving fish farms to another gulf (Karaada offshore) by Kemal Fishery Company was approved by the Provincial Governorship of Izmir in March 2019, following the decree of Special Environment Protection Region (Evrensel 11.06.2019).

6.4. Quarries

The members of Karaburun City Council declare that there are four open quarries located in Mordoğan, between Salman and Parlak, Yaylaköy and in Ildırı. Two of them are operated by big companies as Polat Maden (clay quarry) and Kulesan Companies (plant mixed concrete) which have national and international networks. The activities of quarries have continued since 2011 (Figure 6.16).

Moreover, in Kösedere and Eğlenhoca villages, quarry areas had been approved before they were closed in 2017 and 2018 thanks to the efforts of Karaburun City Council. They used to be close to olive groves, the distance was approximately 3 km. Despite that the quarries violate the Reclamation of Olive Cultivation and Budding of Wild Olive Trees Law, they were approved without fulfilling the requirement of environmental impact assessment in 2012. Also, the quarries caused local people's dissent since quarries have been creating negative impacts on olive groves (Karaburun City Council, 2014).

Despite the efforts of the Karaburun City Council, either the incentives and approvals for quarries or companies' demands to reopen and integrate the closed quarries, to open new ones, or to increase the capacity still continue, creating further threat to fauna and flora of Karaburun Peninsula. Lastly, there are proposals for extension of the quarries, which were previously closed, in Mordoğan. Ali Tekin marble quarry began to be operated in Yellicebelen Mount in 2013, and the Karaburun City Council objected the quarry. The civil society protested the quarry during the information meeting about the investments. Similarly, a new quarry was proposed around the olive groves in 2017. Actually, it was for increasing the capacity of an existing quarry. The extension was approved by the decision that environmental assessment report was unnecessary under the condition that the production could not exceed 4500 m³ annually. Thanks to the reregulation of Environmental Assessment Regulation, the capacity less than the defined capacity in law can be approved without the obligation of an environmental assessment report. The Court canceled the decision, because the project area was planned to be extended up to 75 hectares even though the proposal report of investment was only for 25 hectares that was the upper limit for the decision that environmental assessment report is unnecessary.

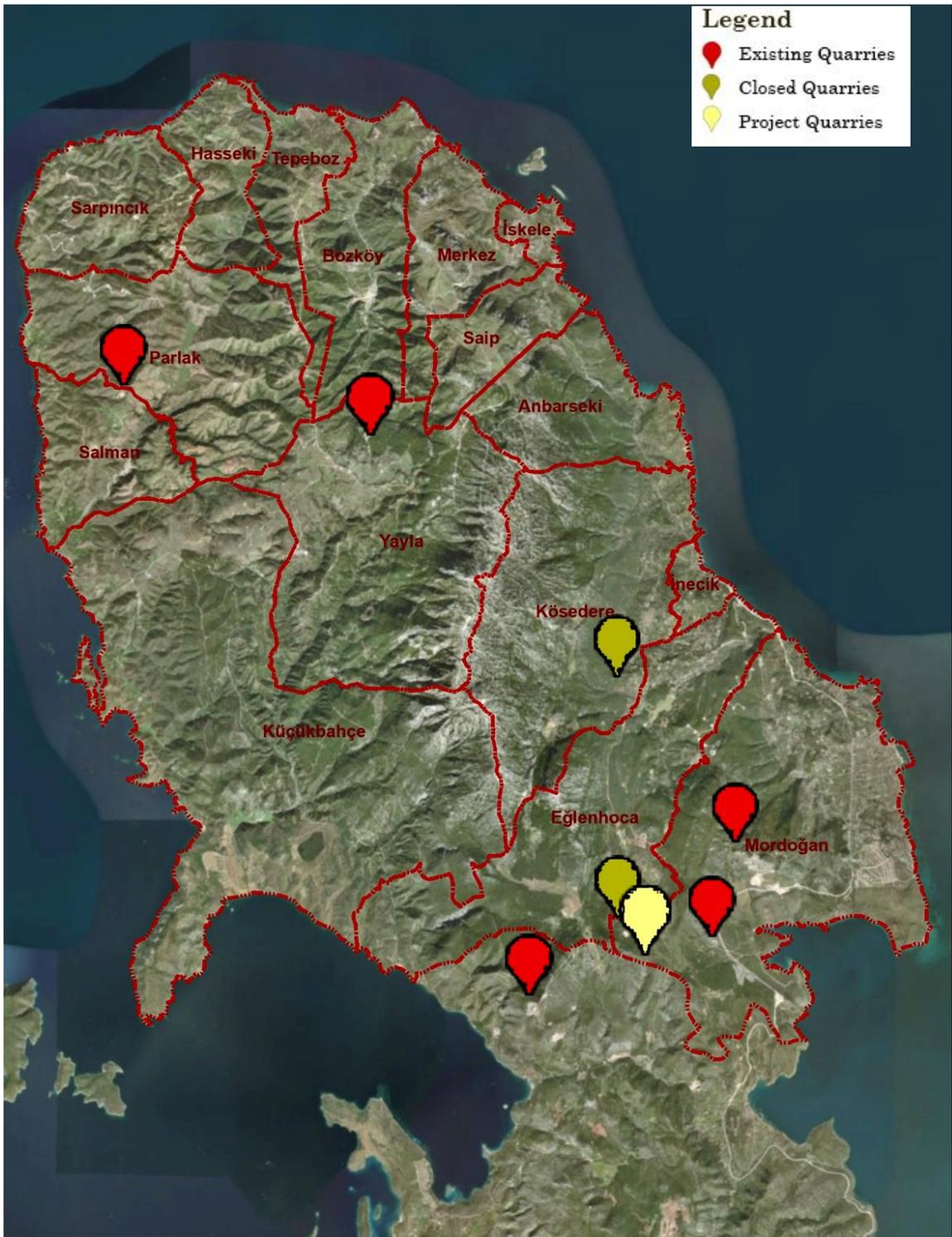


Figure 6. 16. Mining Facilities in Karaburun Peninsula

(Produced based on Field Observations in 2018, Google Earth Satellite Photos 2018, and Lawsuit Reports)



Figure 6. 17. Quarry in Mordoğan
(Field Survey, December 2018)



Figure 6. 18. Quarry in Mordoğan
(Field Survey, December 2018)

Lastly, an approximately 98 hectares of limestone quarry was proposed by İbrahim Firtına in Mordoğan and Balıklıova. The decision concluded that environmental assessment report was redundant for 2 hectares of the project area in 2018, because only these 2 hectares are located in Mordoğan neighborhood. In the project introduction report, it is clearly seen that the area is near the olive groves and AR-KO buildings. The explosions during the quarry extraction would damage the buildings. Besides the explosions would have some negative impact on the growth and productivity of olive trees.

6.5. Secondary Houses and Tourism

Mass tourism activities in Karaburun Peninsula are carried out only by two registered hotels located in Ayıbalığı (Monk seal) gulf, Mordoğan currently. Besides, there are guesthouses especially in Karaburun and Mordoğan. On the other hand, secondary houses spread out the coasts of Mordoğan and Karaburun Centre and Küçükbahçe village. The houses are located in second or third- degree natural protection areas, and along forests and agricultural areas (Figure 6.1.).

Emekli and Soykan (2008) state that the secondary houses and small hotels in Karaburun peninsula began to spread in 1980, after the marine tourism strategy for the Peninsula. According to Erdem, Erdoğan and Nurlu (2011), there was no urban settlements or secondary houses on the West coasts of the Peninsula; and there was a limited secondary housing development in Karaburun and Mordoğan Centres in 1984. The current location of secondary houses overlaps with those constructed after 1990 (Figure 6.19. and Figure 6.20). The secondary houses located in Gerence bay, between Küçükbahçe and Parlak Villages, Mordoğan Centre, on the North and South of Mordoğan Centre are seen in the Çeşme - Karaburun Coastal Master Plan (Figure 6.21) which proposed the development of secondary houses on the coasts in 1989. The proposal overlaps with current location of secondary houses, as well. Consequently, the spread of secondary house development began in 1990s. The tourism development as secondary houses spread after 1990 by the Coastal Plan incentives (Figure 6.21). The development began with the support of 'Tourism Incentive' Law which allowed allocation of Treasury or state lands for tourism investments in 1982. As an early neoliberal development, lots of secondary houses were constructed by private construction companies. The development of secondary houses promotes spreading of urban functions in the areas such as commercial and service activities, and increasing of transportation and infrastructures.

Nurlu, Gökçek, Yılmaz and Erdem (2003, 228) claim that the number of secondary houses was between 2000-4000 in 1990, and the number increased up to 8000 until 2000. After 2000, in 2 years the number reached to 10.000. According to seasonal population data in 2001, the Peninsula's population increased three times during summer period, in three months. According to 2001 data, the population reached to approximately 26.000 in the summer season, as the population of the other seasons was approximately

7000 (Veryeri, Nurlu and Erdem 2003,168). On the other hand, the number of secondary houses on the coasts of Karaburun Peninsula was counted as 4575 in 2010 via analyzing the number of the secondary houses and address based population registration system during the research process of Integrated Coastal plan for whole Izmir (Ministry of Environment and Urbanization, 2012). Prediction for seasonal population of the Plan is near to Veryeri, Nurlu and Erdem's prediction as 18.300.

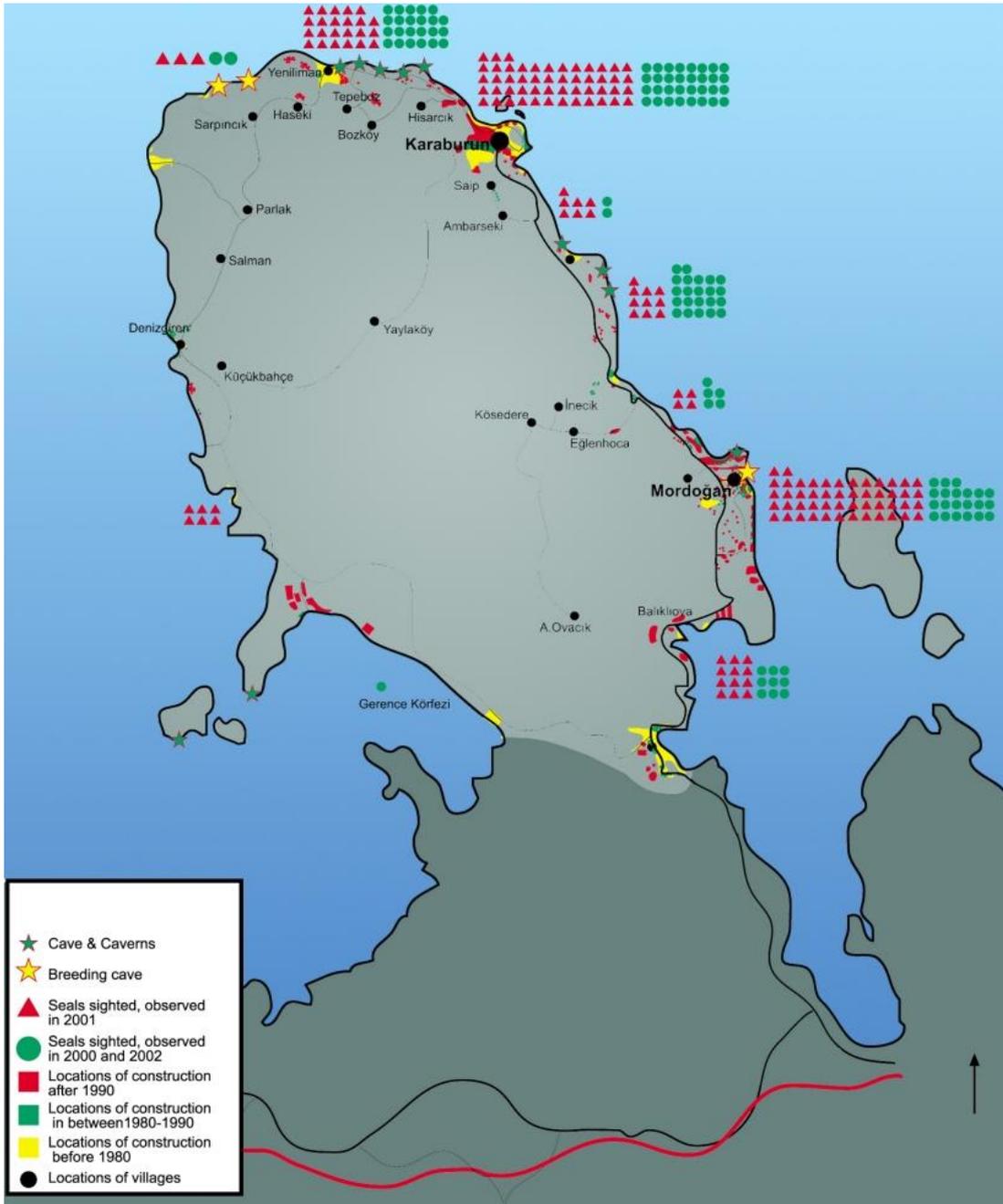


Figure 6. 19. Location of the Past Settlements and Mediterinan Monk Seal Caves

(Source: Veryeri, Nurlu and Erdem 2003, 167)

Having analyzed Google Earth satellite photos, it is observed that the secondary houses are approximately 5000 in the Peninsula. The observed number is near the Coastal Plan's data. The secondary houses are located in the first proposed location and, there is no important difference about the number of secondary houses after 2000. Only, AR-KO cooperative buildings' construction process have continued stage by stage in the years 2006, 2011 and 2019. Thus, the secondary houses haven't increased significantly in Karaburun Peninsula in 2000s. On the other hand, the areas proposed for secondary house development in the Çeşme - Karaburun Coastal Master Plan was partly constructed except from Karaburun Centre Neighborhood and Mordoğan. The most part of the proposed locations was empty. However, all upper scale plans continue to propose new development areas and new transportation decisions.

Lastly, alternative tourism investments and excursion facilities with their transportation networks were proposed as a new tourism strategy for Karaburun Peninsula. İzmir Development Agency proposes ecotourism strategies for the Peninsula in the 2014- 2023 İzmir Regional Plan. The peninsula is seen as a focus point for tourism development in the Regional Plan, and the decision is supported through transportation strategies. Also, the İzmir – Manisa Master Plan proposes excursive tourism and secondary houses at coastal (Figure 6.24.), and West Izmir Master Plan supports the decision by defining high capacity road, yacht and passenger ports and new tourism development areas (Figure 6.25). However, all coasts and sea of the Peninsula are natural protection areas, and also under the conservation.

Considering the fact that the farmers have been getting poorer, the City Council supports rural tourism activities. This meant forests, natural protection areas and the remaining properties of peasants will be exposed to alternative tourism activities, and thus subjected to marketization and commodification. The laws and regulations support this tendency. It is allowed that forests or lands with natural features for tourism activities such as Special Environment Protection areas and biodiversity areas can be allocated for alternative tourism investments by the 2008 regulation in the Tourism Incentive law.



Figure 6. 20. Current Secondary Houses
(Produced based on Google Earth Satellite Photos 2018 and Integrated Coastal Plan)

6.6. Related Plans and Strategies

The oldest master plan for Karaburun is the 1989 Coastal Master Plan for Karaburun and Çeşme. Then, the plan was revised in 1991. The İzmir-Manisa-Kütahya Master Plan was done by Ministry of Environment and Forest, and it was canceled in 2007. 1/25.000 scaled Master Plan for the West Part of Izmir was a subsidiary plan of canceled plan, but was not approved, and never published. After the establishment of the Ministry of Environment and Urbanization in 2011, the Ministry started to do strategic plans in naturalized boundaries. One of the plans is the Integrated Coastal Plan for Izmir in 2012. Then, Izmir Development Agency prepared Izmir Regional Plan which includes strategic decisions for Karaburun in 2013. In 2014, the 1/100.000 scaled Izmir - Manisa Master Plan was prepared. Lastly, 1/25.000 scaled Master Plan for West Izmir prepared which was dependent on the decisions of Regional Plan and Master Plan. The plan is in the process of approval and revision now.

In 1989 Çeşme and Karaburun Coastal Master Plan, the secondary houses were defined on the coasts of the Karaburun. The current location of secondary houses and their locations in the plan wholly overlap. Secondary housing areas are located on Karaburun Centre, Iskele, Mordoğan, Küçükbahçe coasts.

The decisions in Izmir-Manisa Master Plan and Western of Izmir Master Plan support to continue the same proposal for secondary housing with some extensions and supportive investments such as roads and ports. Thus, the development of secondary houses and tourism strategies differ from other neoliberal practices, because the tourism investments began earlier, in the 1990s.

Integrated Coastal Plan for Izmir was done for the whole coasts of the Izmir, including Karaburun coasts. The threats and contradictions about investments and conservation of the Peninsula were defined in the plan. The plan states that the caves on the coasts of Karaburun Peninsula are the habitat of Mediterranean Monk Seals, and the conservation status of the Peninsula and wild life improvement areas must be specified. Also, some special conservation areas are defined in the plan decisions for the north of the Peninsula, and in Ayıbalığı and Mordoğan including the caves of monk seals. However, the plan adopts a “sustainable economic development” view rather than focusing on environmental issues.

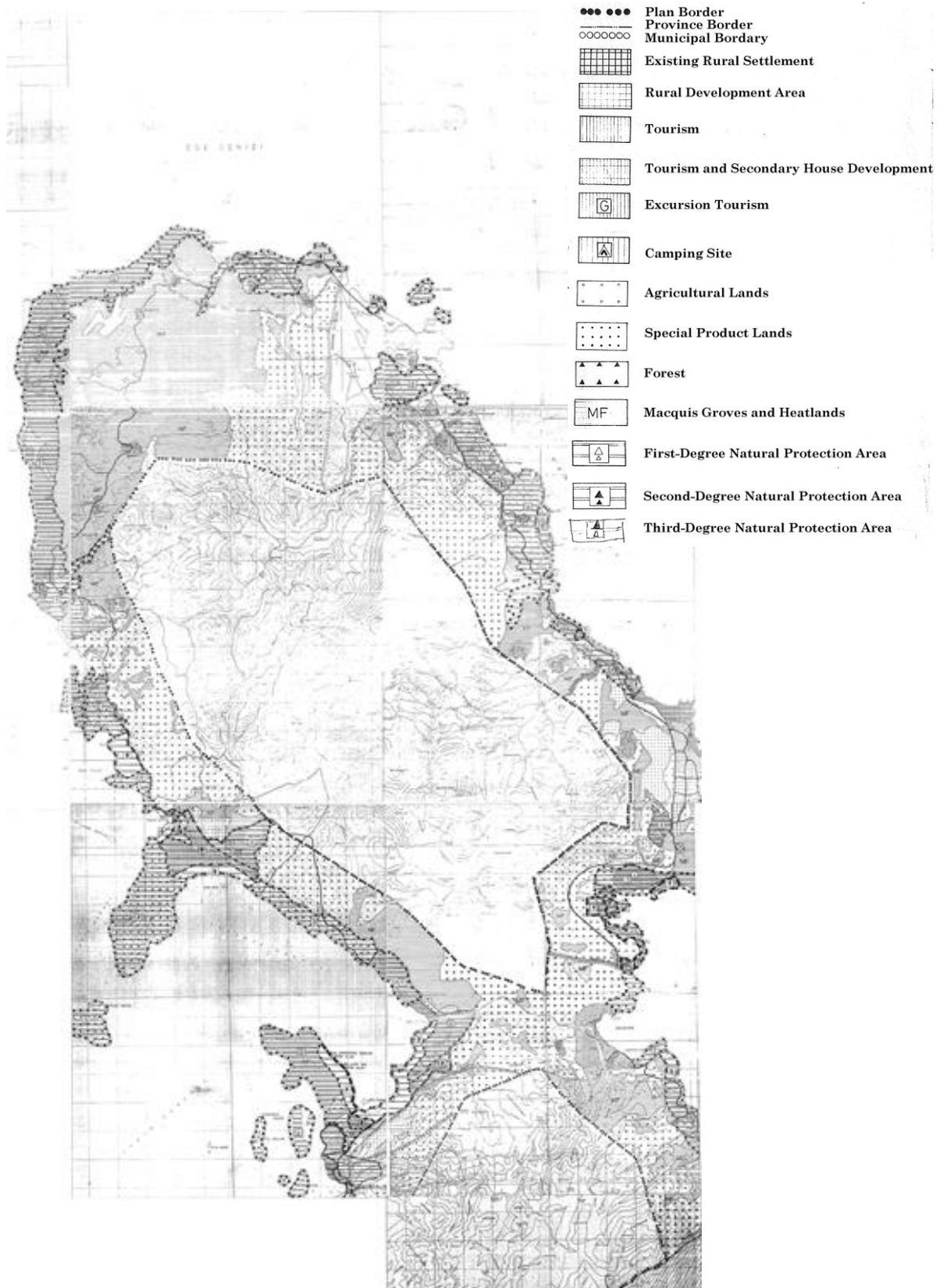


Figure 6. 21. 1989 Coastal Master Plan for Çeşme and Karaburun
 (Source: Karaburun Municipality)



Figure 6. 22. Integrated Coastal Plan of Izmir 2012

(Source: Karaburun Municipality)

It proposes a yacht port for Karaburun coastal which would be a part of Aegean Sea transportation network. In this way, tourism investments such as yacht tourism or excursion tourism are supported. Moreover, tourism activities are suggested on coasts of Mordoğan under the condition that natural characteristics of the peninsula should not be damaged. The tourism activities convenient to nature such as eco-tourism activities are proposed for the back of the coasts although the degradation on coasts (especially, natural

protection areas and forests near the coasts) are defined as a problem. Also, the decision is supported with planning of a passenger port in Mordoğan.

On the other hand, the plan suggests a solution for logistics of fish farms which must settle on natural protection areas. The suggestion is not for the conservation of the natural areas, it is rather for easing the operation of logistics of aquaculture production. Furthermore, the plan suggests the reregulation of the Forest law and Aquacultural Production Law and reduction of the classification of the first-degree natural protection areas to third-degree natural protection areas, for the approval of logistic services and construction on these areas. It claims that such proposals support the 1/25.000 scaled Master Plan decisions. The plan defines the pollution originated from the logistic services and production activities of fish farm as a problem, especially regarding that they narrowed down the habitat of Mediterranean Monk Seals, and damaged marine ecosystem in Karaburun. Even so, it is suggested that the potential aquaculture areas should be redefined, planned and constructed with their logistic services considering the harms on ecosystem. The strategy is conflictual with the suggestion of reregulation of laws and reduction of the status of natural protection areas.

The plan also mentions the situation and strategies about wind farms, but not in a comprehensive way. There is only one strategy that the wind power potential should be evaluated at the back of the coasts. Actually, the strategy paves the way for new investments in wind farms in the Peninsula without any consideration about natural degradation.

Izmir Regional Plan 2013-2024 defines Karaburun Peninsula as a tourism focus (Figure 6.23). Izmir Development Agency makes plans according to NUTS2 regions, and Karaburun was assigned a tourism development role for regional economic development. Izmir Regional Plan 2013-2024 defines Karaburun Peninsula as a tourism focus. Izmir Development Agency makes plans according to NUTS2 regions, and Karaburun was assigned a tourism development role for regional economic development. Similar to Integrated Coastal Plan of Izmir, there are ecotourism or alternative tourism proposals for the Peninsula in the Regional Plan. Karaburun Peninsula is connected Foça and Çeşme by different transport axes having different purposes. Besides, the conservation proposals and suggestions about use of the wind power energy potential are parallel to those in the other plan.

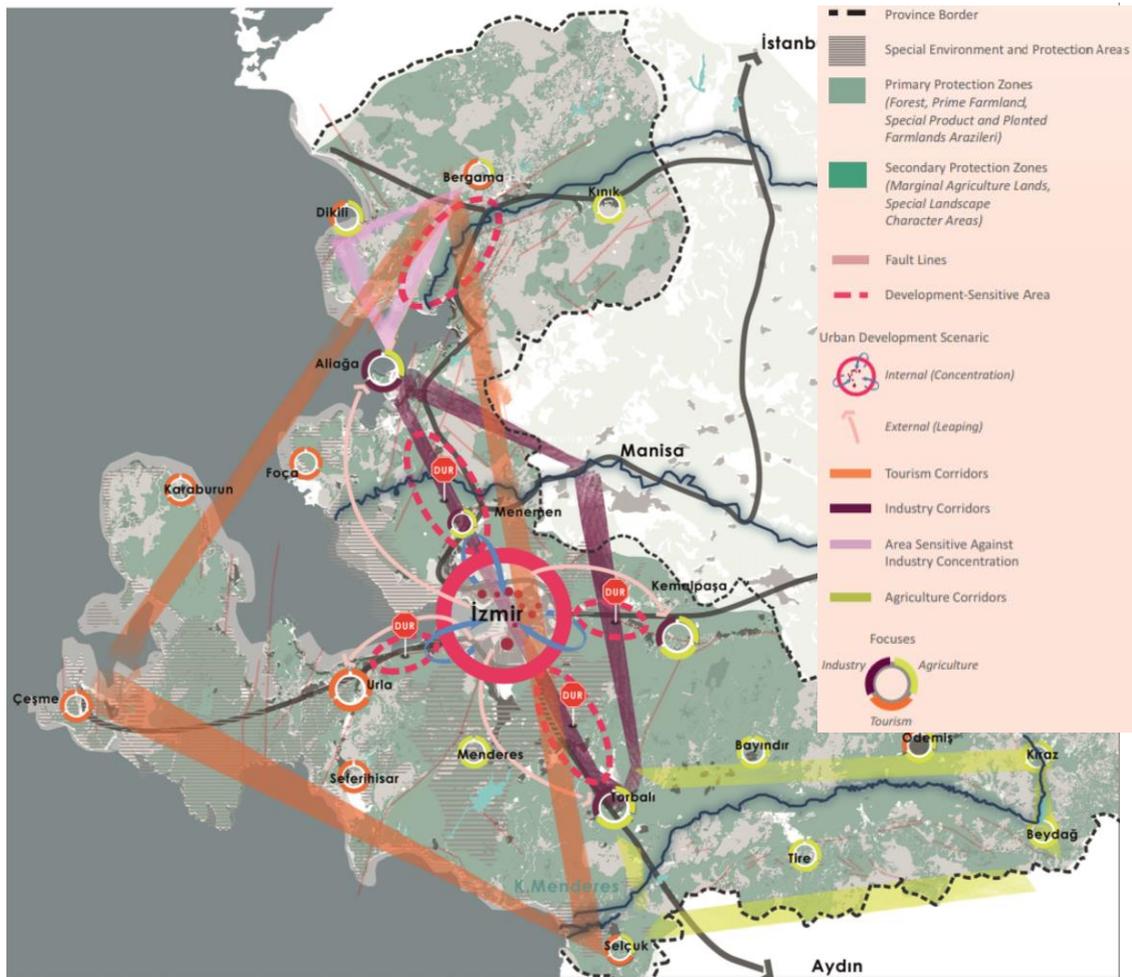


Figure 6. 23. Izmir Regional Plan 2014-2023

(Source: IZKA 2014)

The 1/100.000 scaled Izmir - Manisa Master Plan and the 1/25.000 scaled West Izmir Master Plan are based on the previous strategies and plans. Master plan is an extended and detailed version of Izmir – Manisa Master Plan. It defines the coasts of Karaburun Peninsula as Conservation Area for Mediterranean Monk Seal. However, Master plan suggests a holistic conservation for the Peninsula. The plan suggests that Biosphere Reserve area proposal should be taken into consideration; and, that the extension of urban functions and the investments which damage the natural environment should be avoided. Both plans aim to conserve the areas defined as agricultural land, forests, pastures, in parallel with older plans. The Master plan that was approved more recently, takes the pastures on North of the Peninsula, which were converted into industrial olive groves, as agricultural area. Compared to the Karaburun - Çeşme Coastal plan in 1989, it is seen that the agriculture lands and pastures near coast were defined as

heathland and maquis groves. Also, location of forests overlaps with current places. As a result, from 1989 to current time, the natural vegetation and pastures, which had been communally used by the local people since immemorial times, were changed into olive groves, and the wind farms have damaged some forest and maquis vegetation.

Besides conservation proposal, The Master plan continues the previous strategies about secondary houses with new development areas such as urban development areas or secondary housing areas adjacent to the natural protection areas on the North coasts of the Peninsula. The attempts to develop the secondary housing through Tepeboz, Bozköy and Yeniliman coasts are supported by the plan. There is a proposal about urban development area for the neighborhoods in the Izmir-Manisa Master Plan. Besides secondary housing, commercial or urban settlement areas are proposed in the West İzmir Master Plan, as well.

The Master plan report expresses that the West of the Peninsula began to be emptied. There is not any new housing attempts except from on the coastal between Küçükbahçe and Salman. The İzmir-Manisa Master Plan and the Master plan propose tourism facilities accompanied with extension of secondary houses in Küçükbahçe and on the coasts of Gerence gulf. Both proposals do not take into account the density of fish farms in Gerence gulf. The area is under the pressure of fish farms causing serious pollution in the coastal waters. Neither, do they consider the fact that the industrial agriculture activities and wind farms narrowed down the grazing lands and agricultural lands.

On the other hand, the above mentioned strategies are supported with transportation decisions to provide connection with the Centre of Izmir. A road is proposed. It is defined like a highway, which reaches to Tepeboz and connects the main roads and highways to Izmir and Çeşme highway. During the field survey, it was observed that road construction to the Karaburun Centre Neighborhood has almost been completed, and that it was constructed as convenient to the use of lorries or trucks. The extension of the existing road and newly constructed road ease to transport the wind turbines or any equipment for the investments. In spite that both plans express the wind potential and development in the area by considering significant ecology and possible harms to the vegetation and ecosystem of the Peninsula, they suggest new infrastructures or development decisions which would be harmful for the ecosystem of the Peninsula.

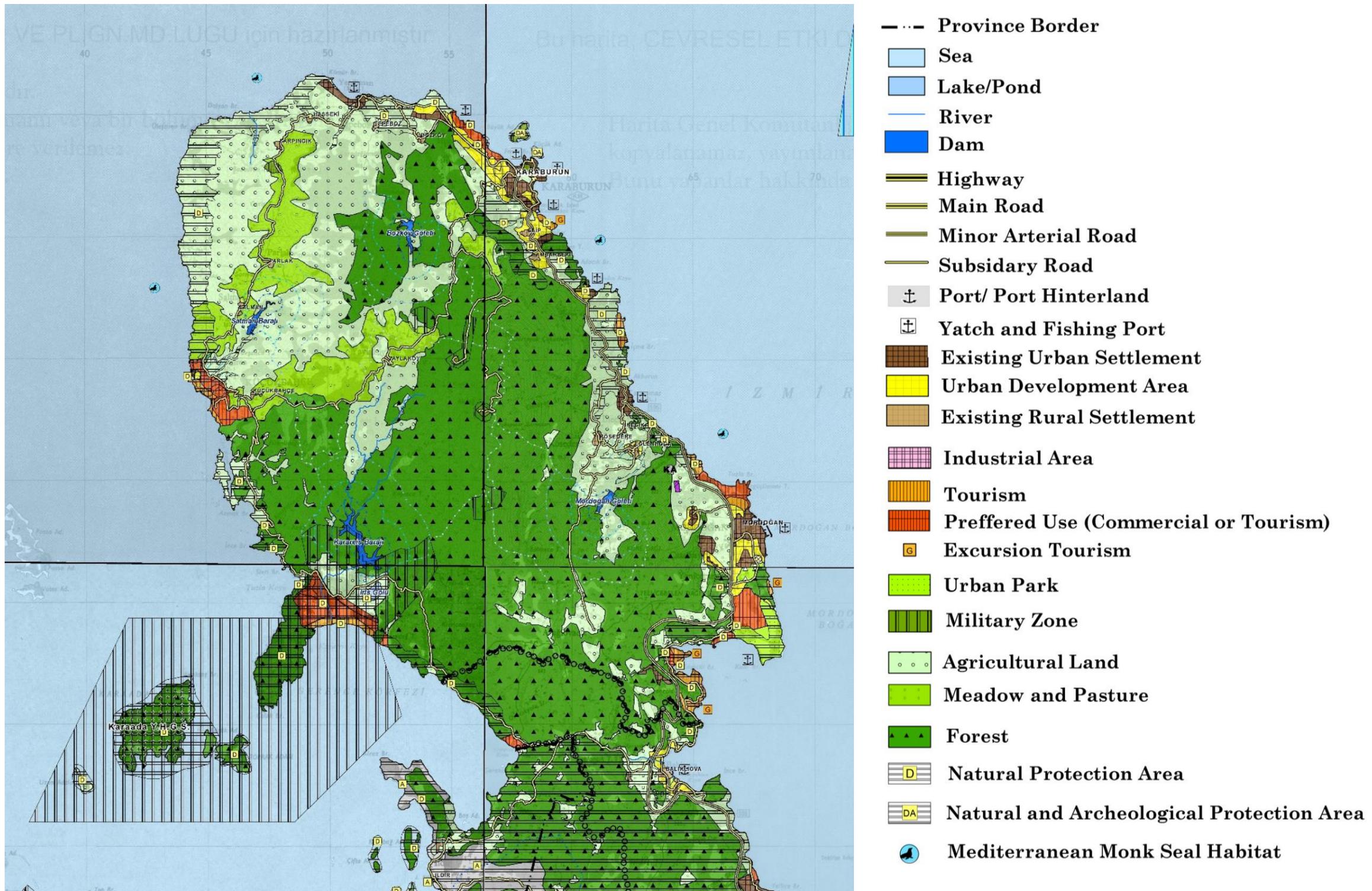


Figure 6. 24. Izmir – Manisa Master Plan 2014-2023

(Source: Ministry of Environment and Urbanization Official Site, access date: 2019)

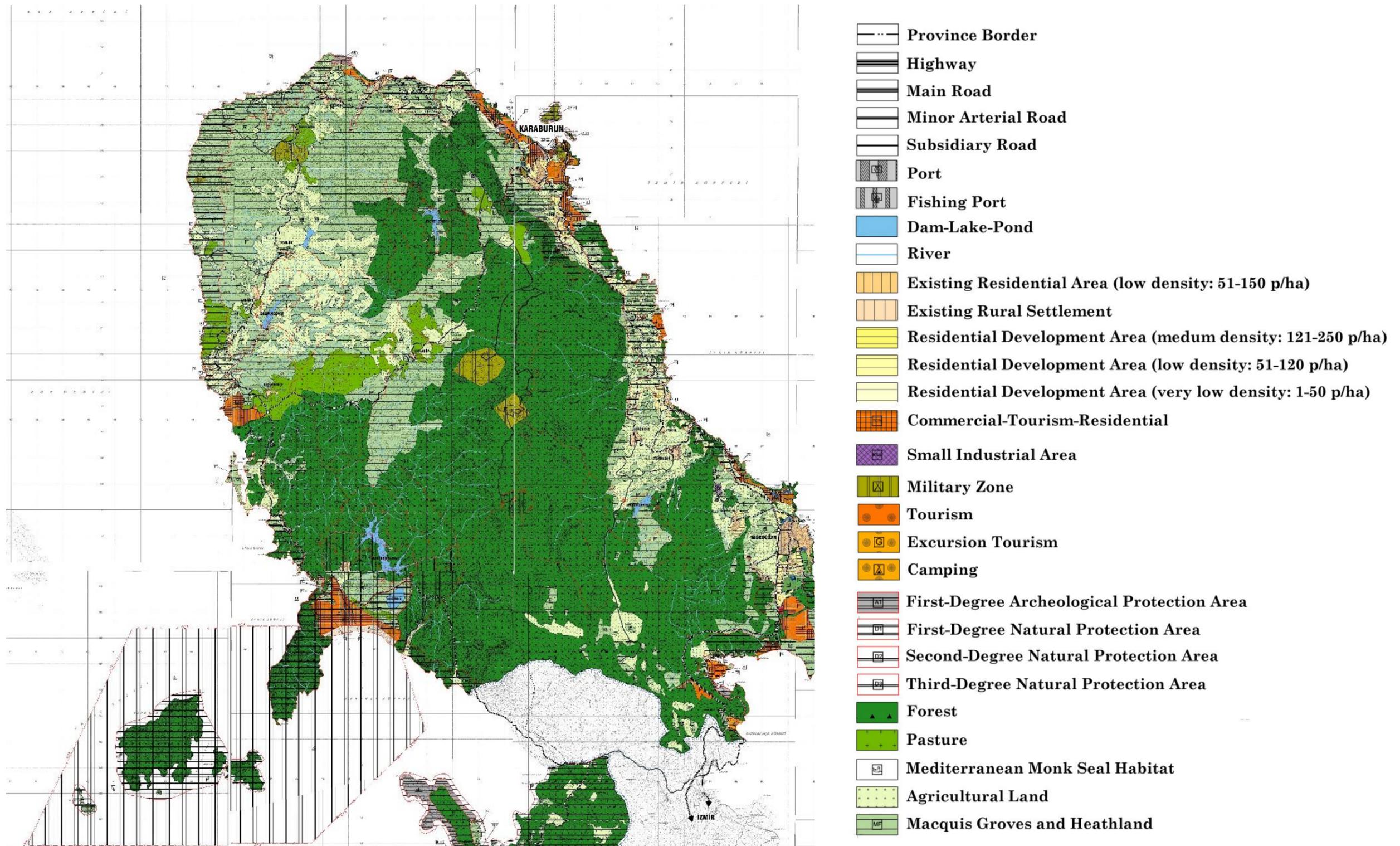


Figure 6. 25. The 1/25.000 Scaled Izmir West Master Plan

(Source: Karaburun Municipality, 2018)

CHAPTER 7

ENVIRONMENTAL, SOCIAL AND SPATIAL RESULTS OF COMMODIFICATION OF NATURE IN KARABURUN PENINSULA

7.1. Accumulation by Dispossession

An enduring migration from rural to urban areas is observed in the data about village population in Karaburun Peninsula (Table 5.1.), as opposed to the increase in the urban population of İzmir. The existing land use functions of the Peninsula do not support the livelihoods and rural characteristics of the villages. The biophysical features of the Peninsula are subjected to capital accumulation. Wind farms, quarries, fish farms and industrial olive production are integrated to global economy, by passing the needs of local people. Although the social facilities, transportation, educational facilities and infrastructures developed in the villages, the negative impacts of the investments on traditional production led to breakdown sustainability of the rural characteristic. The children of goat breeders or villagers cannot sustain their production activities because they were deprived of the very basis of their livelihoods. The goat breeders and farmers state that the goat breeding used to be a remunerative activity, but, it is not enough to earn their living. Because, the yield decreased with narrowing pastures and increasing forage demand.

Goat breeding was an important activity for earning living in Karaburun especially in Küçükbahçe, Salman, Mordoğan and Yaylaköy. They produce milk, goat hair and also traditional cheeses such as “kelle” and “kopanitsi” cheese. The grazing lands located in Bozdağ mount in Yaylaköy and around Yaylaköy are used in summer period, and the pastures in Küçükbahçe and Parlak Villages are used in winter period. The goat breeders declare that they no longer have an access to the pastures and meadow areas, especially used in winter period. Since the pastures in Küçükbahçe and Parlak villages were enclosed by private olive groves, they were blocked to access or pass through. Likewise,

the traditional pathways to their agricultural lands or grazing lands, which were used to be used by their ancestors, were closed or destroyed (H.T., Karaburun Verbal Historical Geography Report 2018).

Similarly, goat breeding almost ended in Küçükbahçe because of dramatic decrease in pastures due to the development of industrial olive production in Küçükbahçe and Salman. Currently, remained only one flock in Salman and two flocks in Küçükbahçe (B.G, October 2018). There were at least 1500 small cattles owned by 40-50 family in Salman in the past. Currently, the number reduced to 400-500 small cattles in Salman and Küçükbahçe. Because local access to water sources were blocked, also the forage and water expense have increased. The goat breeders express that to sell milk is easy, private companies buy their milk. However, cost of production increased and yield is decreased. Moreover, the inspections of the Directorate of Forest decreased and the institution cannot see the decrease of meadow areas (M.D. and A.A. Karaburun Verbal Historical Geography Report 2018). In Kösedere, the pastures did not decrease because there is not important pressure on pastures. However, goat breeders could not find grazing area in Mordoğan, Eğlenhoca and Yaylaköy.

In Yaylaköy, the grazing lands and private properties were enclosed by wind farms, and grazing lands were fragmented and destroyed by infrastructures and roads of wind farms. Their access to grazing and agricultural lands was blocked by fences and construction works. Nine or ten flocks left after the wind farms in Yaylaköy where live the goat breeders and “yörük” people. All people earn their living by goat breeding. However, the goats get ill because of the dust from construction of wind farms, infrastructures and their logistic activities in meadows and near the Yaylaköy village (Y.A., H.T. and L.A., Karaburun Verbal Historical Geography Report, 2018). Not only have the water sources in the mountains decreased after the constructions, but also the species of wild flowers and grasses decreased, as the pastures were narrowed down. A goat breeder in Yaylaköy states that they had 3000 small cattles in Küçükbahçe and Salman previously. However, they gave up animal husbandry because they were prevented to use the pastures after the enclosure by private olive groves (Y.A and H.T. Karaburun Verbal Historical Geography Report 2018; Y.A. October 2018).

The TMMOB (The Union of Chambers of Turkish Engineers and Architects (UCTEA)) expertise report (2012) expressed that the construction

processes of wind farms harmed environment, pastures and olive groves. Besides, the access of local people to pastures was blocked because the areas were enclosed. In addition, it is indicated that the noise of the turbines led to the cut milk fertility. Thus, the goat breeding which is important means of living for local people have decreased especially in Yaylaköy. The report clearly shows that the turbines have negative social impacts in the Peninsula.

The pastures used by local people were not registered and the areas were drawn as a draft in the Master Plan. The registration procedures still continue; 6600 decares pasture area were registered in Küçükbağçe, but part of them cannot be accessed, because of the location of turbines (Figure 6.1.). The pastures used by the local people since memorial times and defined by the Master plan are approximately 30000 decares. The former Mukhtar of Yaylaköy declared that there was 7800 decares of pasture in Yaylaköy, but now the size of pasture assigned for the peasants narrowed down to 1700 decares, and 1000 decares were leased to another private firm (Y.A, Karaburun Verbal Historical Geography Report 2018). Y.A. expresses that the land is not adequate for earning their living by goat breeding, and they have to move other places. He also adds that they became an alien in their own villages. According to goat breeders and former Mukhtars, the pastures and dependently goat breeding have decreased gradually after allocation of the pastures for industrial agricultural production and wind farms. Enclosure of the pastures and preclusion of the pathways prevented grazing activities, and thus caused a significant decrease in milk production.

The former Mukhtar, who was also a goat breeder, expressed that the same number of goats gave 300-400 kgs of milk, but now they gave only 100 kgs. Free movement and grazing are crucial factors for increasing milk production of goats (Y.A, Karaburun Verbal Historical Geography Report 2018). The agricultural data about number of goat and milk production confirm this claim. In 2006, the number of goats is 21470 and milk production is 1038 tones. Although the number of goats reached to 35600, the milk production has been decreasing by years, and it was 917 tons in 2015. The whole data except from the 2016 data are parallel to this correlation (Table 5.3.). Not to mention that the goat hair cannot be sold, because of the lack of demand as it was in the past. The goat hair was used to produce tent and gunny. The ‘Kırkım’ festival in spring time was used to be an important cultural practice. The goat breeders had slaughtered goats for the feast table, the meals had been prepared, and the goats had been clipped. Currently, they cannot

sell the goat hair and they cannot afford the festival because of the decreasing goat and also of decreasing income (Karaburun Verbal Historical Geography Report 2018).

Besides that the local people were dispossessed of their common pastures and meadows, and deprived of traditional production, they were also dispossessed of their private properties. Their private lands located in project areas of wind farms and their infrastructures were urgently expropriated or expropriated. The maps and lists in the Figure 6.1. and in Appendix G, based on accessible data, indicate the private parcels which were subjected to the expropriation and urgent expropriation implementations. Not only were the living sources of villagers confiscated, but also the villagers were dispossessed either of their private properties or of commons. Lastly, Yaylaköy village settlement was announced as “disaster zone” by the decree of the Presidency of the republic. Thus, the villagers face to be evicted from their own lands and homes. There are the projects of Lodos Energy in the area (Akdemir, 19.05.2019).

The local people also deprived of coastal waters and their fisheries, because they are prohibited to local fishery. The Gerence gulf was announced as potential area for aquacultural production and local fishery activities in the seas were prohibited (Chapter 6.3.). There are some fishery cooperatives on the east coastal and seas (Table 5.4.). While the local people cannot make their living, the private aquaculture companies continue production with huge amounts, and export their products (Table 6.3).

Quarries are other threats for villagers’ living sources such as olive production. The quarries, which were previously located close to olive groves, harmed olive trees (Chapter 6.4.). Currently, new proposals for quarries around the olive groves and in forests continue.

During the in-depth interviews with the former mukhtars in Yaylaköy and Küçükbahçe, and members of Karaburun City Council, the impacts of the investments on their living and commons were stated frequently. Bülent Gültekin who is the former Mukhtar of Küçükbahçe village attended to the objection process about wind farms and fish farms. The Coasts of Küçükbahçe is under the pressure of fish farms. He declares that he witnessed the beginning of fish farm activities. In the beginning, the fish farms were not so dense; there were only two fish farms in Eğriliman. Then, fish farms began to increase particularly in the coastal waters close to ashore. He states that with a group of villagers, he stood against to the fish farms in Bademli village, and fish farms were

moved to the offshore. However, he asserts that the fish farms are getting closer to the coasts depending on the season. He also declares that there is no longer local fishery in Salman and Küçükbahçe, other than few in Badembükü in the North of the Peninsula. On the other hand, the members of the Karaburun City Council state that fish farm companies want to move their facilities. Because Gerence gulf was polluted and the productivity of aquaculture decreased. They want to move the fish farms. During the field survey it was observed that they began to move through the North of the Peninsula.

Moreover, it was mentioned that the pastures narrowed and the number of goats decreased in Küçükbahçe, Salman and Parlak villages because of the olive groves. Only one flock remained in Salman. Küçükbahçe and Salman has grazing lands for winter, and Yaylaköy has grazing lands for summer period. However, the grazing lands are not registered, and lastly only 3000 decares of land was reserved for pastures in Salman. In Küçükbahçe, there is no wind farm. The private companies tried to construct a measurement points, but the peasants prevented these attempts. In addition, some of them joined to the objection process for Yaylaköy, and, despite the objections succeeded to prevent wind turbines, the intervention of Ministries stopped the local resistance, only considering economic loss of the companies. Then, wind farms were constructed near to the villages especially to Yaylaköy and Sarpıncık. Lastly, one of the ex-mukhtars' family was exposed to expropriation of their lands in Sarpıncık. He asserts that their lands were expropriated in return of the cost below the market prices. On the other hand, private companies have paid the electricity bills of villagers in Yaylaköy and Sarpıncık, with the view of stopping their objections. During the interview, the property problems about the "village common lands" were also mentioned. It was told that after the Metropolitan Municipality law in 2013, the village common lands were transferred to different Ministries. Thus, it is getting hard to live in village.

Yusuf Arıcı is the former Mukhtar of Yaylaköy village and a goat breeder. He also mentioned the narrowing pastures because of the olive groves and wind farms. Yaylaköy pastures which is summer and winter grazing land for him were especially narrowed by construction of wind turbines. Moreover, the wind turbines are very close to the village settlement. There remained only 10-15 goat flocks in Yaylaköy. He states that also expropriation is an important reason for the end of goat breeding. During this interview, it was also expressed that the pastures were unregistered and now 1700 decares land were reserved as pastures in Yaylaköy. According to him, the pasture areas are not sufficient

for goat breeding activities. It was also declared that, despite the registration process has not been completed yet, now some part of the areas has been allocated for wind turbines.

During the interviews with the members of the Karaburun City Council and Çiğdem Akçura, it was expressed that in the objection processes, the Council was not supported by any governmental institutions, especially by local municipality. Also, they mentioned about the disconnection between the Metropolitan Municipality and Karaburun. Generally, the decisions are taken by the Ministries, and local municipalities have not any role about issue under their decisions. The lawsuit processes have continued for a long time. Especially, the projects of Lodos Energy Company continue, in spite that the positive decision of environmental assessment reports were cancelled four times. Actually, the Company had proposed a lot of projects previously, before the objections. Also, the members state that the private companies, including Lodos Energy Company, took broad security precautions around the project areas to prevent taking photos, and they continued to construction and operation process without completing legal procedures and lawsuit processes.

The members the Karaburun City Council also explain the current situation of the quarries. New quarry projects and activities are proposed for increasing the capacities of previously closed quarries. These quarries are very close to secondary houses and olive groves. Also, the operations of the quarries would damage the ecology of the areas.

The City Council has tried to put conservation proposals into practice for Karaburun such as Biosphere Reserve area and Special Environmental Protection Region. Lastly, the area was announced as Special Environmental Protection Region but wind farm constructions began after the decision. Besides, a new solar energy and quarry project in Küçükbahçe were proposed, as well.

It is seen that local resistance and objections have been continuing for a long time. Because, the villagers and goat breeders have experienced dispossession with expropriation of their own properties or allocation of their common grazing or village lands. Also, the members of the City Council and people who live in Karaburun have been affected by the environmental degradation arisen by the investments. The local objections have become partially successful in Karaburun Peninsula. However, the central authority has tried to stop the resistance by the help of the laws or decrees. Moreover, the objection and communication processes are getting harder by the rescaling

of the governance through new regulations such as the Metropolitan Municipality law, deauthorization of the local municipality, and the decree on Special Environmental Protection Region.

The local people could have conserved natural areas through their traditional ways of relating to nature, as they had already done previously. However, neoliberal conservation has not an aim to conserve nature without any profit (Apostolopoulou and Adam 2014, 16). Neoliberal interventions in the guise of conservation and increasing private investments in natural areas cut the relations between local people and nature. The regulations and policies operate to encompass the natural areas in global capital accumulation.

As conclusion, the natural areas of the Karaburun Peninsula began to be marketized and privatized through the transfer of use rights to private companies under the auspices of neoliberal policies. Thus, as Mercile and Murphy (2017, 1042-1043) shows, the common natural lands or villagers' lands have become private commodities and properties of private companies, and the capital accumulation has shifted to a wider area through the investments such as wind turbines, industrial olive production, fish farms etc., and thus, all these practices culminated in dispossession of the villagers from their own lands and commons. The villagers can't sustain their local production because of the enclosure of their common or own lands. Thus occurs accumulation by dispossession in the Peninsula.

7.2. Damage of Natural Environment and Ecosystem

The wind energy generation as "green" energy production with zero carbon emission and air pollution that is claimed to be a new sector to conserve and use nature at the same time. It has low cost, but the investments require big areas which are isolated as an economic disadvantage. In Turkey, wind turbines are constructed in State lands or Treasury lands which are generally forests, pastures, agriculture areas as lands with rural characteristics. Wind farms with their concomitant transmission lines, roads, infrastructures and amenities have negative impacts on population of birds and bats besides degradation of vegetation (Kantarci 2015, 568; Hayer 2013, 975; NWCC 2010; Manville 2005, 1059).

The turbines should be located with taking ecological important areas, bird routes and their social impacts into consideration besides economic efficiency and cost. The whole documents about environmental assessment reports and expert reports during law processes, the projects about availability of wind farms and ecology of the Peninsula show that the Peninsula's biodiversity, especially birds and bats, has affected by wind turbines.

Turkey signed some global conventions and international contracts for conservation of natural areas and species such as the International Union for Conservation of Nature (IUCN) and Bern Contract. Also, Doğa Derneği is a partner of Bird Life International. Karaburun Peninsula is a reserve area for significant species are defined in these international institutions' and conventions' conservation lists. The Peninsula is an important location in the project of defining Bird Sensivity Map. According to the Avian Bird Sensivity Map, which is created by Doğa derneği and Bird Life International by taking into consideration some key factors for birds living under sensitivity condition, the Peninsula have minimum 571 and maximum 2272 value for each 5 kilometers square (Figure 7.1.). Also, the Peninsula is an important ecological area with significant points for bird routes (Chapter 5.2.). Across the coasts of the Peninsula, Foça and Çeşme, the Peninsula has an upper value as 6117 in the Bird Sensivity Map.

However, density and frequency of wind turbines already negatively impact on migratory birds, and also on wild birds living around tribunes. The barrier effect depends on the bird species and flight characteristics. Especially raptors and migratory birds come into collision with rotating blades (Dai et al. 2015; Madders and Withfield 2006). Similarly, the members of Doğa Derneği express that one of the most important threat in Karaburun Peninsula as a sensitive area is wind farms on the migration routes of birds gliding in the air. These species of birds cannot maneuver because of the size of wingspread, and they have no chance to escape from wind turbines. Also, environmental assessment reports poin to the barrier effect of Lodos Energy wind turbines.

Besides that the wind turbines threat the birds, their infrastructures, roads, energy transmission lines harm ecological integrity. They are located near breeding areas of seasonal migratory or group migratory birds and important vegetation areas especially forests. The roads and construction works divide the habitats, and lead to degradation in habitats along roads creating 'edge effects' such as changes in microclimates and fragmentation of biodiversity (Coffin 2007; Develey and Stouffer 2001).

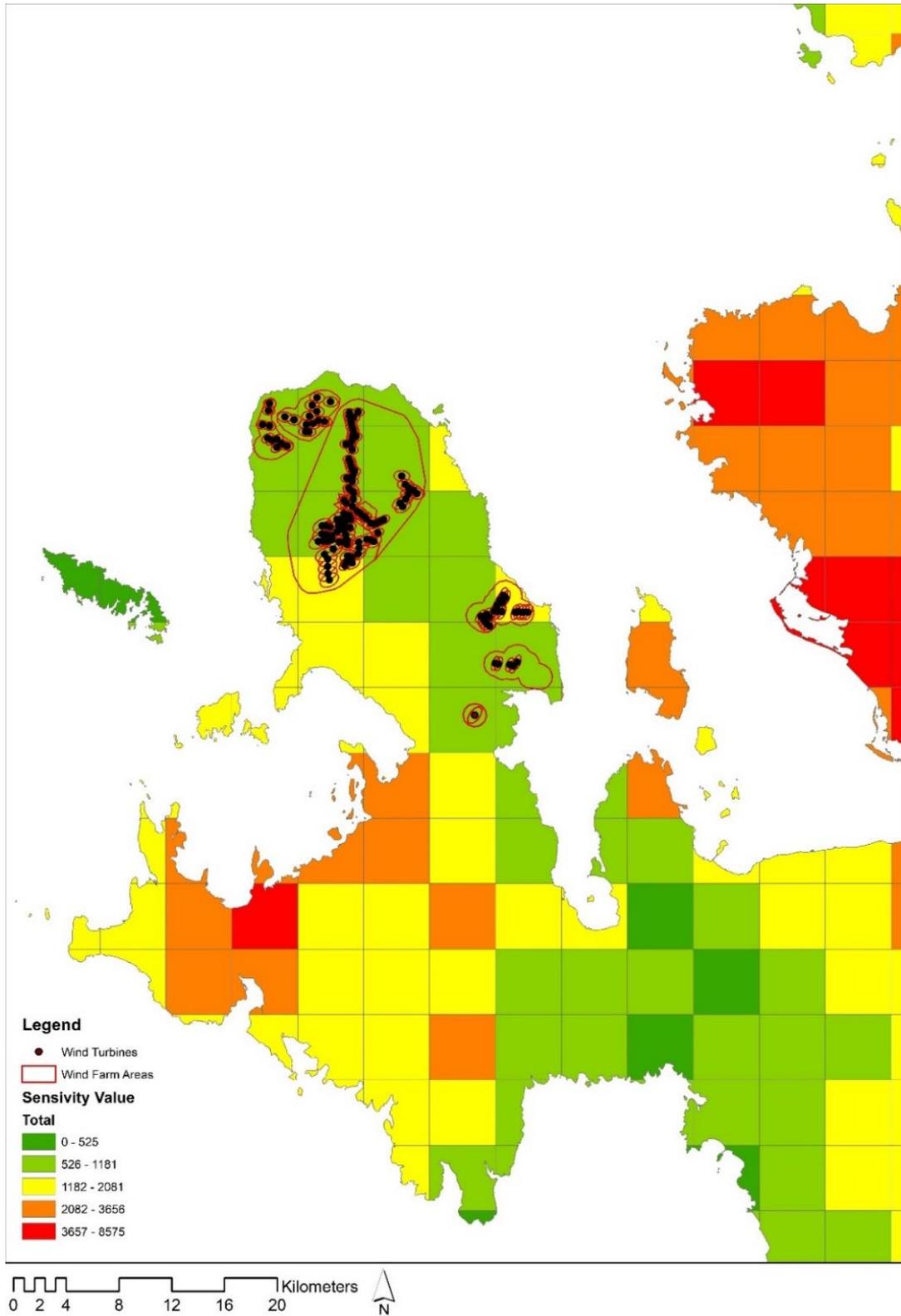


Figure 7. 1. Bird Sensitivity Areas and Wind Turbines
 (Produced by Analyzing and Processing the Data of Bird Life International and Doğa Derneği, and 2018 Data of EPDK by Using ArcGIS)

Moreover, Sediqi (2015) projected the suitable areas for wind turbines by taking into consideration such factors as agricultural areas, forests, settlements, economic efficiency at the same time; and, indicated that existing and proposed turbines did not overlap with the suitable areas, rather, they violate bird sensitivity areas.

Similarly, the environmental assessment reports done in lawsuit process accept that wind farm projects are located in the significant flora and fauna areas. In environmental assessment reports of Lodos Energy's project, it is indicated that there are 101 bird species and 21 bat species, which are under the international conservation by conventions and by institutions, in project areas. Also, the turbines are located in ecologically important forest areas (pine forests) which are included in high value classification in Yaylaköy. 35 turbines in Yaylaköy stay in the pine forests. However, despite that the turbines are located on, and harm, important vegetation, and that they have barrier effect for migratory birds, the report takes positive decision.

Another important issue is that cumulative impacts of wind turbines led to decreasing the population of bats and birds. In addition, the turbines have some negative impacts on agricultural production. Lastly, a programme was started against to flies which are harmful for olive trees by Karaburun Municipality and the District Directorate of Agriculture. The increase of insects and the fliers has a relation with the decreasing population of bats. Besides the decrease in the goat breeding because of the enclosure of the pastures, olive or another agricultural production have decreased cause of the negative socio-environmental impacts of the wind turbines.

Lastly, in 2018, during the lawsuit process about the proposed wind turbines by Lodos Energy, a field survey and an expertise report were done. In this report, it is indicated that the Peninsula and the project area have a unique value with its habitats and biodiversity. The environmental assessment report approved in 2018 was rejected, because some turbines were located in the forest area defined in the Izmir – Manisa Master Plan. The turbines were located on unique and rare vegetation as frigana and scrub, and it was proposed a completely separate area from the existing wind turbines and their infrastructures. The constructions and infrastructures of wind turbines such as roads visibly harm the vegetation. It destroys not only the vegetation but also leads to negative impacts on breeding and sheltering of wild species such as wolf, fox and wild boar. Besides, the proposed and existing turbines are located in ecological important area with

a route for wild and migratory birds, especially at the tops on hills. Moreover, there are risks of heath islands and of decrease in dew. According to the view about possible harms of forest in the expert report, the environmental assessment report demonstrates that the explanations about turbines and their impacts are insufficient, especially regarding that the harms of transportation and the precautions about risk of fire and excavation were not clearly explained. The expert report also states that the harms of turbines on ornithology, flora and fauna will not be important, if the proposed tribunes are constructed in the sites of existing ones. For they would use the existing infrastructure of the existing wind turbines. However, it does not mention the cumulative effect of the existing and proposed wind turbines. The report expresses that turbines are located in the area which has meadow and pasture characteristics and, the areas are available for the olive production and livestock. The decision on the pasture areas belongs to the Provincial Commission of Pasture in Izmir. However; in the Second Phase of the Added 1/5000 scaled Development Plan and 1/1000 Implementation Plan, the opinion of the Provincial Commission of Pasture is positive for wind turbines in the area despite its significant forage capacity and its costs for local people. In addition, both of the reports don't mention about social impacts of the enclosure of the areas because of the wind turbines.

Similar process with similar means and effects occurred in Sarpıncık. In 2017, For Sarpıncık wind farm, an Added 1/5000 scaled Development Plan and 1/1000 scaled Implementation Plan were done with an Expropriation Plan. In the added plan the plot which covers 2,3 hectares was expropriated, based on the public interest decision of EPDK. As a result of the decision and the plan, the lawsuit process began, and an expertise report was prepared. In the expert report, the environmental effects of the investments were defined. It is expressed that the plan proposed the roads only for wind turbines rather than an integrated network. The planned area is also a pasture area in the Izmir-Manisa Master Plan. In sum, the plan did not have a holistic transportation and conservation view, and it did not satisfy the rural needs. Also, there was not any spatial prediction for similar and future investments in the plan. According to the expert report, the plan actually was against to 'public interest'. Because of its environmental impacts, the plan was cancelled (see Chapter 6.2.; Table 6.2.).

Another threat to ecology and biodiversity is aquaculture production by private companies. Also, logistic activities of the fish farms are increasing in the coasts under the international conservation, and first-degree natural protection areas on the coasts.

Karaburun is a significant habitat for living and breeding not only endangered land mammals and species but also endangered marine species. However, densely located fish farms in the coastal waters of the Karaburun Peninsula (Figure 6.1.) threaten marine flora and fauna with increasing organic materials and antibiotics. In the existing plans such as the Integrated Coastal plan for Izmir and the Izmir-Manisa Master Plan, the Master Plan for the West Izmir, it is stated that the fish farms located at the West of the Peninsula and Gerence gulf pollute the seas. However, the plans suggest to move the fish farms to another location of the Peninsula which is also under conservation. The coasts of the Peninsula are habitat areas of Posidonia sea grasses and Mediterranean Monk Seals. Lastly, the location of the fish farms was tried to be changed to the East of the Peninsula along from coastal waters of Saip to Karaburun Centre which have dense settlements, secondary houses and tourism activities. Another significant threat which is mentioned in the plans is that fish farms have narrowed living areas of Mediterranean Monk Seals and increased the risk that young seals are accidentally entangled in fishnets. On the other hand, although the plans state that the logistic services also create negative impacts on marine ecology and Mediterranean Monk Seals, they proposed legal changes to ease logistic services.

There are four researches about fish farms and their impacts in Karaburun Peninsula, in Gülbahçe, Gerence gulf, Ildırı and Mordoğan sea waters. It should be kept in mind that the researches were carried out, generally before 2010, and their samples are old. The research periods are before the spreading of fish farms on the North, and moving the fish farms to offshore. The research in Gülbahçe by Yamanlı and Egemen (2009) indicates that the level of nutrients and the particle concentration are higher than the reference station. However, there is no significant difference of the temperature, the level of nitrate and phosphate between reference station and fish farms. Similarly, the research in the Gerence gulf and Ildırı shows that the particle concentration is higher in summer but the difference in nutrient levels is insignificant. Also, Demirel (2011) shows that the pollution of the Gerence and Ildırı bays is caused by the fish farms in the area. The 88% of nitrate and 82% of phosphate in the gulf were caused by the fish farm activities. According to the findings of the research and current aquaculture production data, the production increased from 15.690 tons to 40.840 tons between 2011 and 2018 except from the production in Ildırı bay.

Over feeding and antibiotics in fish farms harm the species, which lives in sea mud and at the bottom of the sea. Sedimentation and excess in nutrients finally create the risk of eutrophication and increasing alga. Organic materials, nutrients and antibiotic aggregation cause massive fish and sea species death. The fish population decreases and moves away from the fish farms. On the other hand, because of the aggregation layer on the sea surface, sea grass cannot make photosynthesis and they vanish. Another important research is about *Posidonia* seagrasses. The research is an early research, in 2008, before fish farms increased so much. Although the production was four times less than the current production, it is defined in the research that the growth of the *Posidonia* sea grasses were harmed and their population decreased (Yabanlı and Egemenli 2009, 208; Bobat 2009 see Kuşçu 2011).

During the in-depth interviews with the members of the Karaburun City Council, it is expressed that the aquaculture production companies want to move their cages because of the decrease in aquaculture production. It is stated that the causes of the decrease in production are the habitat loss in the marine ecology and the decrease in the population of *Posidonia* sea grasses because of the pollution. The attempt to move fish farms by enlarging the cages to the East of the Peninsula is reasoned by increasing pollution in Gerence gulf.

Quarries has more obvious effects on nature especially on vegetation. Although mining search and operation activities cause damage of vegetation and ecosystem, the Mining Law has given extended rights to private sector for search and operation since it was enacted. The environmental assessment reports of the quarries and mining activities in the Peninsula generally conclude with positive decisions, or it is decided that the environmental assessment report is unnecessary. Like all of the environmental assessment reports, it is claimed and approved that the harms on ecosystem and vegetation on the surface can be recovered through ecological restoration. Indeed, it is not possible to substitute the same vegetation and biodiversity having developed for years. Some quarries were closed, because they were close to olive groves. However, there is no ecological restoration activity in the quarries.

Another important issue is the proposal of tourism and secondary houses at coasts. Tourism proposals brought along new ports and transportation activities such as Karaburun – Tepeboz – Izmir road. The tourism facilities and proposals located in natural

areas and protection areas. Especially in Mordoğan where Mediterranean Monk Seals breed and live (especially in Ayıbalığı gulf), dense settlements are proposed. These proposal of secondary houses, tourism facilities and urban functions are connected with new transportation proposals.

Currently, the construction works of new road continue with new route or extension of existing roads. It is expressed by villagers that the number of wolfs decreased after the construction of roads of İzmir- Çeşme Highway in 1995 (Karaburun Verbal Historical Geography Report). It is observed that the new road also passes through agriculture areas and olive groves. Thus, the olive trees were removed during the construction works. The road is almost as wide as a highway. It seems that the capacity of road was increased and it was extended not only for dense tourism activities but also for logistic services of the investments such as wind turbines.

CHAPTER 8

CONCLUSION

All attempts about creating and regulating legal framework for conservation and the use of previously unowned or non-used areas for capitalist activities have crucial socio-natural and environmental impacts in the Karaburun Peninsula. The Peninsula has been encompassed in the capitalist activities via privatization, reregulation and deregulation. It is indicated that the capitalist investments are implemented in Treasury lands, pastures, forests or private property of villagers, and the local people can't access or use their common lands or private lands for breeding or agricultural activities. Therefore, they become poorer while the investments make profit by commodification of natural resources or areas. Accumulation by dispossession with all its dimensions is observed in the Karaburun Peninsula. In addition, investments in natural areas have led to environmental degradation in the Peninsula. It means that environmental dispossession occurs not only for local people but also for all the people related to the ecosystem of the Peninsula. As Harvey emphasises, dispossession is about the deprivation of the rights such as environmental and human rights.

The implementation of the neoliberal policies began with the Tourism Incentive law (1982), and construction and spread of secondary houses on coastal areas of Karaburun Peninsula. Then, the neoliberal practices have continued through reregulations in the 2000s. Privatization of seas came in for aquaculture production in 2003. In addition, potential aquaculture areas were defined, and local fisheries were prohibited by the Aquaculture Production Protocol (2008). It immediately follows that fish cages in Gerence gulf have increased. Then, 1994 Forestation regulation paved the way for allocation of Treasury lands qualified as pastures for industrial agriculture. The pastures in the North of the Peninsula were removed and transformed into private olive groves. The enactment of the law about sustainable energy investments for energy generation in 2005, and its amendment in 2008 brought along allocation of Treasury land, expropriation and urgent expropriation of private lands for the private investments in wind power generation and their infrastructures. Accompanied to the regulations, the reregulations in the Forest Law after 2002 and the Pasture Law after 2004, and the enactment of the Law

on Land use and Agriculture Lands in 2005 supported the approval of the investments in the previously non-commodified natural areas. Thus, the natural areas such as forests, pastures, agricultural lands have been occupied by wind farm, industrial agriculture, quarries and tourism activities.

Not only have the reregulation mechanisms supported such activities but also deregulations occur in the proposal and construction procedures over and over. All kinds of activities began to be approved thanks to environmental assessment reports which support them under the condition of conservation or restorative solutions such as ecological restoration. However, the decision that “environmental assessment report is unnecessary”, which became possible with the 2014 regulation related to capacity restriction, is taken for most investment projects. Lastly, quarries in Eğlenhoca and Kösedere had been approved thanks to this regulation, before they were closed. They were approved despite the distance between their location and olive groves is less than 3 km. The approval of these quarries violates the relevant law on olive groves.

On the other hand, the rescaling processes, which extended through the natural areas, occur in the Peninsula. The management of the Peninsula have become centralized and rescaled repeatedly in 2006, 2011, 2012 and 2019. The policy making authority and management of the Karaburun and their natural areas were transferred firstly to the Metropolitan Municipality by the laws no. 5216 and no 6360, and the status of the villages changed into neighborhoods in 2012. Also, the situation about boundaries that are included in the Metropolitan area brought along some problems in common village lands and their property and use rights. However, the Ministry of Environment and Urbanization has already undertaken the approval of the investments in, and management of, the natural areas since 2011. As a result of the efforts in the last 5 years, the whole of the Karaburun Peninsula with Ildırı islands and bay were announced as Special Environment Protection Region by the 823 numbered decree of the Presidency of the Republic on 15th March 2019. This type of conservation status brought along new type of governance and rescaling besides limitations on investments because authority of the areas become more centralized. The Ministry of Environment and Urbanization has authority about making whole scaled plans, besides giving permission and controlling the investments now. Local resistance and the efforts of the Karaburun City Council were able to limit some capitalist activities in the Peninsula. However, the flanking mechanism

has not been occurred in Karaburun, also in Turkey. The institutions are more local, and the institutions have only a protesting role against to the investments in

Although the conservation decision was given, tourism activities with transportation links can be kept on, and wind energy plants can be recommended. The laws and regulations about the conservation status make possible to continue the investments with the decisions and plans of the Ministry of Environment and Urbanization or of the Presidency of the Republic. Special Environmental Protection Regions have been opened for sustainable energy investments by the 2008 regulation in the relevant law. Another regulation of the Tourism Incentive Law made possible the allocation of Treasury lands and natural areas under authorization of State for utilizing their biodiversity or natural landscapes. This shows that neoliberal conservation in Karaburun Peninsula is a means of making the area an economic reserve without a purpose to protect it. Thus, the valuable ecology of the Peninsula has become a 'fix' for capital.

In addition, during the meeting about explanation of the process of Special Environment Region at the Ministry of Urbanization and Environment, the significance of the conservation of Peninsula was explained by the Minister of Urbanization and Environment. Besides, it is expressed that the conservation would be continued with ecotourism strategies. In this way, the Peninsula would be exposed to similar dispossession and enclosure dynamics all around the world. The process can occur in a different way however, the lands would be allocated for ecotourism activities such as camping, trekking, and their services by the supports of the laws and regulations such as Tourism Incentive Law.

The current events show that the protection decree is not an obstacle for the investments in Karaburun Peninsula. Lodos Energy company began to construct the wind power generation project and its infrastructure after the announcement of the decision on Special Environmental Protection Region. The implementation and development plans of the project were approved before the decree. According to the laws, the plans must be stalled. However, the construction of the wind power project still continues. Also, there have been other proposal in the Peninsula such as solar energy, new quarry and fish farms after the decree. The projects and plans about these projects were approved by the Ministry of Environment and Urbanization. The fish farm companies began to propose

moving the fish farms outside from the Gerence gulf, and one of them was approved despite the conservation decree. The move was requested by fish farm companies because of the pollution of current fish farm area. Moreover, Yaylaköy village has been announced as “disaster zone” by the decision of the Presidency of the Republic. Thus, the conservation decrees have not protected the Peninsula from investments. Rather, the investments and accumulation by dispossession have been supported by more central decisions and approvals excepting local resistance and authorities.

New spatial or scalar “fixes” find their culminations in natural areas, new boundaries, re-organized and rescaled networks and power relations, which hold on the new type of capital accumulation. The regulations about the investments on pastures, agriculture areas, forests for sustainable energy, quarries, fish farms etc. exemplify environmental fixes. The commodified natural areas such as protection areas, forests pastures etc. are the examples of ecological fixes. The rescaling of authorization, plans such as the Coastal Plan and Master Plan, and current approvals and future plans on the boundary of Ildırı-Karaburun Special Environment Protection Region are examples of eco-scalar fixes. Hence, the plans and strategies have been continued in naturalized boundaries. The eco-scalar fixes generally cause environmental degrading and uneven labor supply, as Cohen and Bakker indicate. The eco-scalar fixes resulted in environmental degradation and dispossession of local people in Karaburun Peninsula, as well.

To conclude with some proposals against the existing neoliberalization of nature and accumulation by dispossession, the Peninsula should be conserved as an ecological reserve area with environmental priority rather than economic concerns. The management of the areas should take into consideration the local people interests, their relations with nature and their cultural practices. The limitations and obstacles of local people’s use of their common or private lands should be removed, and the activities about earning their living should be sustained. Governance method in proposal of Biosphere Reserve area can be taken into consideration but it should focus on the interest of local people rather than private investors, and the allocation should not be applied in common lands. Moreover, the laws, which are reregulated, have only passive restrictive roles for the investments on previously non commodified natural areas. Rather, they are supportive for the investments. Upper scale plans should include special plan notes for the Peninsula especially for wind farms and fish farms. The expressions about the use of potential

aquaculture production and wind energy production are too weak in the plans, a specific spatial boundaries or limits for the investments should be defined.

Incidents that will happen in the future, and their impacts such as environmental degrading and accumulation by dispossession should be examined after the decree of the Special Environmental Protection Region as an obvious example for neoliberal conservation, rescaling of authorities and “eco-scalar” fixes in Karaburun Peninsula.

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APPENDIX A

LAWS AND REGULATIONS ABOUT NATURAL AREAS, THEIR MANAGEMENT AND USE

Table a. 1. Laws, Regulations and Amendment about Natural Areas by Years

(Source: Legal Information System)

Law	Number	Date	Regulation Years
Reclamation of Olive Cultivation and Budding of Wild Olive Trees Law	3573	7/2/1939	1939, 1995, 2008, 2012 (canceled in 2015), 2018
Forest Law	6831	31/8/1956	1968, 1971, 1973, 1984, 1986, 1987, 1995, 2000, 2001, 2003, 2004, 2008, 2010, 2011, 2012, 2013, 2014, 2016, 2017, 2018
Aquacultural Production Law	1380	4/4/1971	1986, 2003, 2010, 2012, 2018
Tourism Incentive Law	2634	16/3/1982	1983, 1988, 1991, 1997, 2001, 2003, 2004, 2006, 2007, 2008, 2014, 2018
Protection of Cultural and Natural Properties Law	2863	23/7/1983	1987, 2004, 2006, 2007, 2008, 2009, 2011, 2013, 2014, 2016, 2018
National Park Law	2873	11/8/1983	2001, 2008, 2011, 2014, 2018
the Assignment of Institutions except Turkey Electricity Administration for Electricity Production, Distribution and Trade Law	3096	19/12/1984	1987, 1990, 2001, 2005, 2018
Mining Law	3213	15/6/1985	1987, 1999, 2001, 2004, 2006, 2007, 2010, 2012, 2014, 2015, 2016, 2017, 2018
Coastal Law	3621	17/4/1990	1992, 2003, 2005, 2008, 2017, 2018
Pasture Law	4342	25/2/1998	2002, 2003, 2004, 2005, 2007, 2008, 2013, 2014, 2015, 2016, 2017, 2018
Duties of The Energy Market Regulatory Law	4628	3/3/2001	2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2016
Metropolitan Municipality Law	5216	23/7/2004	2005, 2006, 2007, 2008, 2010, 2011, 2012, 2013, 2018
City Administrations Law	5302	4/3/2005	2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013,
Usage of Renewable Energy Resources to Generate Electrical Energy Law	5346	10/5/2005	2007, 2008, 2011, 2012, 2013, 2016, 2018
Soil Protection and Landuse Law	5403	19/7/2005	2007, 2008, 2014, 2017, 2018
Duties of Development Agencies Law	5449	8/2/2006	2009, 2011, 2014, 2018
The Amendement Law Delegated about Fourteen Municipality and Twenty Seven Province Law	6360	6/12/2012	2013, 2014, 2016, 2017
Electricity Market Law	4628/6446	20.02.2001 - 30/3/2013	2014, 2015, 2016, 2017, 2018
Expropration Law	2942	8/11/1983	2001, 2004, 2010, 2013, 2014, 2016, 2018,
Regulations			
Allocation of Public Land to Tourism Investors		28/4/1983	1985, 1989, 2003, 2006, 2007, 2009, 2010, 2012, 2013, 2016, 2018
Forestration		6/4/1987	1989, 1994, 1996, 1998, 2003, 2004, 2009, 2011, 2012
The Signing of the Water Rights Agreement of Electricity Market Production		26/6/2003	2006, 2007, 2009, 2012
Plans in Protected Areas		23/03/2012	2016
State Lands in Natural Protection Areas and Natural Resources and Special Environmental Protection Areas		2/5/2013	2018
Environmental Assessment		7/2/1993	1997, 1999, 2000, 2002, 2003, 2004, 2008, 2009, 2011, 2013, 2014, 2016, 2017, 2018

APPENDIX B

IMPORTANT BIRD SPECIES IN WIND FARM PROJECT AREAS

Table B. 1. Defined Birds under International Conservation in Karaburun Wind Farm Project Area and far from 40 km (with taking Gediz Ramsar area and Izmir Kuş Cenneti into consideration)

(Source: Environmental Assessment Report about Lodos Energy Wind Farm Project)

Türkçe İsim	Bilimsel İsim	IUCN	BERN	CITES	OSB	MAK	Göç	RES Proje Alanında Rastlanan Türler (+)
Küçük batağan	<i>Tachybaptus ruficollis</i>	LC	KKA	—	KA	—	Y	
Bahri	<i>Podiceps cristatus</i>	LC	KA	—	KA	—	Y	
Kara boyunlu batağan	<i>Podiceps nigricollis</i>	LC	KKA	—	KA	—	Y	
Karabatak	<i>Phalacrocorax carbo</i>	LC	KA	—	—	KA	Y	
Tepeli karabatak	<i>Phalacrocorax aristotelis</i>	LC	KA	—	KA	—	Y	
Küçük karabatak	<i>Phalacrocorax pygmaeus</i>	LC	KKA	—	KA	—	Y	
Ak pelikan	<i>Pelecanus onocrotalus</i>	LC	KKA	—	KA	—	Y	
Tepeli pelikan	<i>Pelecanus crispus</i>	VU	KKA	EK I	KA	—	Y	
Balaban	<i>Botaurus stellaris</i>	LC	KKA	—	KA	—	Y	
Küçük balaban	<i>Exobrychus minutus</i>	LC	KKA	—	KA	—	Y	
Gece baltıklı	<i>Nycticorax nycticorax</i>	LC	KKA	—	KA	—	Y	
Alaca baltıklı	<i>Ardeola ralloides</i>	LC	KKA	—	KA	—	Y	
Küçük ak baltıklı	<i>Egretta garzetta</i>	LC	KKA	—	KA	—	Y	
Büyük ak baltıklı	<i>Egretta alba</i>	LC	KKA	—	KA	—	Y	
Gri baltıklı	<i>Ardea cinerea</i>	LC	KA	—	—	KA	Y	
Erguvani baltıklı	<i>Ardea purpurea</i>	LC	KKA	—	KA	—	Y	
Kara leylek	<i>Ciconia nigra</i>	LC	KKA	EK II	KA	—	G, Y	
Leylek	<i>Ciconia ciconia</i>	LC	KKA	—	KA	—	G, Y	+
Çeltikçi	<i>Plegadis falcinellus</i>	LC	KKA	—	KA	—	Y	
Kaşıkçı	<i>Platalea leucorodia</i>	LC	KKA	EK II	KA	—	Y	
Flamingo	<i>Phoenicopterus ruber</i>	LC	KKA	EK II	KA	—	Y	

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Table B. 2. (Continued)

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Ornitolojik Rapor

Kuğu	<i>Cygnus olor</i>	LC	KA	—	KA	—	Y	
Ötücü kuğu	<i>Cygnus cygnus</i>	LC	KKA	—	KA	—	Y	
Sakarea	<i>Anser albifrons</i>	LC	KA	—	—	AH	K	
Boz kaz	<i>Anser anser</i>	LC	KA	—	—	KA	Y	
Angıt	<i>Tadorna ferruginea</i>	LC	KKA / TR	—	KA	—	Y	+
Suna	<i>Tadorna tadorna</i>	LC	KKA / TR	—	KA	—	Y	
Fiyu	<i>Anas penelope</i>	LC	KA	—	—	AH	Y	
Boz ördek	<i>Anas strepera</i>	LC	KA	—	—	AH	Y	
Yeşilbaş	<i>Anas platyrhynchos</i>	LC	KA	—	—	AH	Y	
Kılkuyrık	<i>Anas acuta</i>	LC	KA	—	—	AH	Y	
Çıkrıkçın	<i>Anas querquedula</i>	LC	KA	—	—	AH	Y	
Kaşıkgağa	<i>Anas clypeata</i>	LC	KA	—	—	KA	Y	
Macar ördeği	<i>Netta rufina</i>	LC	KA	—	—	AH	Y	
Elmabaş patka	<i>Aythya ferina</i>	LC	KA	—	—	AH	Y	
Pasbaş patka	<i>Aythya nyroca</i>	NT	KA	—	KA	—	Y	
Tarakdiş	<i>Mergus serrator</i>	LC	KA	—	—	KA	K	
Dikkuyruk	<i>Oxyura leucocephala</i>	EN	KKA / TR	EK II	KA	—	Y	
Yılan kartalı	<i>Circaetus gallicus</i>	LC	KKA	EK II	KA	—	Y	+
Saz delicesi	<i>Circus aeruginosus</i>	LC	KKA	EK II	KA	—	Y	+
Gökçe delice	<i>Circus cyaneus</i>	LC	KKA	EK II	KA	—	Y	
Atmaca	<i>Accipiter nisus</i>	LC	KKA	EK II	KA	—	Y	+
Şahin	<i>Buteo buteo</i>	LC	KKA	EK II	KA	—	Y	+
Kızıl şahin	<i>Buteo rufinus</i>	LC	KKA	EK II	KA	—	Y	+
Kaya kartalı	<i>Aquila chrysaetos</i>	LC	KKA	EK II	KA	—	Y	+

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Table B. 3. (Continued)

Karaburun Rüzgar Enerji Santrali

Ornitolojik Rapor

Büyük orman kartalı	<i>Clanga clanga</i>	LC	KKA	EK II	KA	—	K	+
Bahk kartalı	<i>Pandion haliaetus</i>	LC	KKA	EK II	KA	—	Y	+
Küçük kerkenez	<i>Falco naumanni</i>	VU	KKA	EK II	KA	—	Y	+
Kerkenez	<i>Falco tinnunculus</i>	LC	KKA	EK II	KA	—	Y	+
Aladoğan	<i>Falco vespertinus</i>	NT	KKA	EK II	KA	—	T	+
Boz doğan	<i>Falco columbarius</i>	LC	KKA	EK II	KA	—	K	+
Delice doğan	<i>Falco subbuteo</i>	LC	KKA	EK II	KA	—	Y	+
Ada doğanı	<i>Falco eleonorae</i>	LC	KKA	EK II	KA	—	Y	+
Bıyıklı doğan	<i>Falco biarmicus</i>	LC	KKA	EK II	KA	—	Y	
Gökdoğan	<i>Falco peregrinus</i>	LC	KKA	EK I	KA	—	Y	+
Bıldırcın	<i>Coturnix coturnix</i>	LC	KA	—	—	AH	Y	+
Sukulavuzu	<i>Rallus aquaticus</i>	LC	KA	—	—	KA	Y	
Benekli suyelvesi	<i>Porzana porzana</i>	LC	KKA	—	KA	—	Y	
Bataklık suyelvesi	<i>Porzana parva</i>	LC	KKA	—	KA	—	Y	
Sutavuğu	<i>Gallinula chloropus</i>	LC	KA	—	—	KA	Y	
Sakar meke	<i>Fulica atra</i>	LC	KA	—	—	AH	Y	
Turna	<i>Grus grus</i>	LC	KKA	EK II	KA	—	Y,T	
Mezgeldek	<i>Tetrax tetrax</i>	NT	KA	EK II	KA	—	Y	
Poyrazkuşu	<i>Haematopus ostralegus</i>	LC	KA	—	—	KA	G,T	
Uzunbacak	<i>Himantopus himantopus</i>	LC	KKA	—	KA	—	Y	
Kılıçgaga	<i>Recurvirostra avosetta</i>	LC	KKA	—	KA	—	Y	
Kocagöz	<i>Burhinus oedinenus</i>	LC	KKA	—	KA	—	Y,G	
Bataklık kırlangıcı	<i>Glareola pratincola</i>	LC	KKA	—	KA	—	Y,G	
Halkalı küçük cıbt	<i>Charadrius dubius</i>	LC	KKA	—	KA	—	Y	

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Table B. 4. (Continued)

Karaburun Rüzgar Enerji Santrali

Ornitolojik Rapor

Halkalı cıbt	<i>Charadrius hiaticula</i>	LC	KKA	—	KA	—	T,K
Akça cıbt	<i>Charadrius alexandrinus</i>	LC	KKA	—	KA	—	Y
Altın yağmurcun	<i>Pluvialis apricaria</i>	LC	KA	—	—	KA	K
Gümüş yağmurcun	<i>Pluvialis squatarola</i>	LC	KA	—	—	KA	K
Mahmuzlu kızıkuşu	<i>Vanellus spinosus</i>	LC	KKA	—	KA	—	G
Kızıkuşu	<i>Vanellus vanellus</i>	LC	KA	—	—	KA	Y
Büyük kumkuşu	<i>Calidris canutus</i>	LC	KA	—	—	KA	T,K
Ak kumkuşu	<i>Calidris alba</i>	LC	KKA	—	KA	—	K
Küçük kumkuşu	<i>Calidris minuta</i>	LC	KKA	—	KA	—	K
Sarı bacaklı kumkuşu	<i>Calidris temminckii</i>	LC	KKA	—	KA	—	K
Kızıl kumkuşu	<i>Calidris ferruginea</i>	LC	KKA	—	KA	—	K
Kara karınlı kumkuşu	<i>Calidris alpina</i>	LC	KKA	—	KA	—	K
Döğüşkenkuş	<i>Philomachus pugnax</i>	LC	KA	—	—	KA	T,K
Küçük suçulluğu	<i>Lymnocyptes minimus</i>	LC	KA	—	—	KA	K
Suçulluğu	<i>Gallinago gallinago</i>	LC	KA	—	—	AH	K
Çulluk	<i>Scolopax rusticola</i>	LC	KA	—	—	AH	K +
Çamurçulluğu	<i>Limosa limosa</i>	NT	KA	—	—	KA	K
Kervançulluğu	<i>Numenius arquata</i>	NT	KA	—	—	KA	K
Kara kızılback	<i>Tringa erythropus</i>	LC	KA	—	—	KA	K
Kızılback	<i>Tringa totanus</i>	LC	KA	—	—	KA	Y
Bataklık düdükcünü	<i>Tringa stagnatilis</i>	LC	KKA	—	KA	—	K,T
Yeşilback	<i>Tringa nebularia</i>	LC	KA	—	—	KA	K,T
Yeşil düdükcün	<i>Tringa ochropus</i>	LC	KKA	—	KA	—	K,T
Orman düdükcünü	<i>Tringa glareola</i>	LC	KKA	—	KA	—	T

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Table B. 5. (Continued)

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Ornitolojik Rapor

Dere düdükcüünü	<i>Actitis hypoleucos</i>	LC	KKA	—	KA	—	G	
Denizdudükcüünü	<i>Phalaropus lobatus</i>	LC	KKA	—	KA	—	T	
Akdeniz martısı	<i>Larus melanocephalus</i>	LC	KKA	—	KA	—	Y	
Küçük martı	<i>Larus minutus</i>	LC	KKA	—	KA	—	K	
Karabaş martı	<i>Larus ridibundus</i>	LC	KA	—	—	KA	Y	
İnce gagalı martı	<i>Larus genei</i>	LC	KKA	—	KA	—	K	
Ada martısı	<i>Larus audouinii</i>	NT	KKA	—	KA	—	Y	+
Küçük gümüş martı	<i>Larus canus</i>	LC	KA	—	—	KA	K	
Gümüş martı	<i>Larus argentatus</i>	LC	—	—	—	KA	Y	+
Kara gagalı sumru	<i>Sterna sandvicensis</i>	LC	KKA	—	KA	—	Y	
Sumru	<i>Sterna hirundo</i>	LC	KKA	—	KA	—	Y	
Küçük sumru	<i>Sterna albifrons</i>	LC	KKA	—	KA	—	G	
Biylıklı sumru	<i>Chlidonias hybrida</i>	LC	KKA	—	KA	—	Y	
Kara sumru	<i>Chlidonias niger</i>	LC	KKA	—	KA	—	Y	
Ak kanathlı sumru	<i>Chlidonias leucopterus</i>	LC	KKA	—	KA	—	Y	
Kaya güvercini	<i>Columba livia</i>	LC	KA	—	—	AH	Y	+
Kumru	<i>Streptopelia decaocto</i>	LC	KA	—	—	KA	Y	+
Üveyik	<i>Streptopelia turtur</i>	LC	KA	—	—	AH	G	+
Guguk	<i>Cuculus canorus</i>	LC	KA	—	KA	—	G	+
Peçeli baykuş	<i>Tyto alba</i>	LC	KKA	EK II	KA	—	Y	
Puhu	<i>Bubo bubo</i>	LC	KKA	EK II	KA	—	Y	
Kukumav	<i>Athene noctua</i>	LC	KKA	EK II	KA	—	Y	+
Kulaklı orman baykuşu	<i>Asio otus</i>	LC	KKA	EK II	KA	—	Y	+
Kır baykuşu	<i>Asio flammeus</i>	LC	KKA	EK II	KA	—	Y	+

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Table B. 6. (Continued)

Karaburun Rüzgar Enerji Santrali

Ornitolojik Rapor

Çobanalдатan	<i>Caprimulgus europaeus</i>	LC	KKA	—	KA	—	G	+
Ebabil	<i>Apus apus</i>	LC	KA	—	KA	—	G	+
Ak karınlı ebabil	<i>Tachymarpis melba</i>	LC	KKA	—	KA	—	G	+
İzmir yalıçapkını	<i>Halcyon smyrnensis</i>	LC	KA	—	KA	—	Y	
Yalıçapkını	<i>Alcedo atthis</i>	LC	KKA	—	KA	—	Y	
Alaca yalıçapkını	<i>Ceryle rudis</i>	LC	KA	—	KA	—	Y	
Arikuşu	<i>Merops apiaster</i>	LC	KKA	—	KA	—	G	+
Gökkuzgun	<i>Coracias garrulus</i>	NT	KKA	—	KA	—	G	+
İbibik	<i>Upupa epops</i>	LC	KKA	—	KA	—	G	+
Alaca ağaçkakan	<i>Dendrocopos syriacus</i>	LC	KKA	—	KA	—	Y	
Boğmaklı toygar	<i>Melanocorypha calandra</i>	LC	KKA	—	KA	—	Y	+
Bozkar toygarı	<i>Calandrella brachydactyla</i>	LC	KKA	—	KA	—	Y	+
Tepeli toygar	<i>Galerida cristata</i>	LC	KA	—	—	KA	Y	+
Tarlakuşu	<i>Alauda arvensis</i>	LC	KA	—	—	KA	Y	+
Kum kurlangıcı	<i>Riparia riparia</i>	LC	KKA	—	KA	—	G	+
Kır kurlangıcı	<i>Hirundo rustica</i>	LC	KKA	—	KA	—	G	+
Kızıl kurlangıç	<i>Hirundo daurica</i>	LC	KKA	—	KA	—	G	+
Ev kurlangıcı	<i>Delichon urbicum</i>	LC	KKA	—	KA	—	G	+
Kır incirkuşu	<i>Anthus campestris</i>	LC	KKA	—	KA	—	G	+
Ağaç incirkuşu	<i>Anthus trivialis</i>	LC	KKA	—	KA	—	G	+
Çayır incirkuşu	<i>Anthus pratensis</i>	LC	KKA	—	KA	—	G	+
Dağ incirkuşu	<i>Anthus spinoletta</i>	LC	KKA	—	KA	—	Y	
Sarı kuyruksallayan	<i>Motacilla flava</i>	LC	KKA	—	KA	—	G	+
Dağ kuyruksallayanı	<i>Motacilla cinerea</i>	LC	KKA	—	KA	—	Y	+

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Table B. 7. (Continued)

Karaburun Rüzgar Enerji Santrali

Ornitolojik Rapor

Ak kuyruksallayan	<i>Motacilla alba</i>	LC	KKA	—	KA	—	Y	+
Kızılgerdan	<i>Eritacus rubecula</i>	LC	KKA	—	KA	—	Y	+
Bülbül	<i>Luscinia megarhynchos</i>	LC	KKA	—	KA	—	G	+
Kara kızalkuyruk	<i>Phoenicurus ochruros</i>	LC	KKA	—	KA	—	Y	+
Çayır taşkuşu	<i>Saxicola rubetra</i>	LC	KKA	—	KA	—	Y	+
Taşkuşu	<i>Saxicola torquatus</i>	LC	KKA	—	KA	—	Y	+
Boz kuyrukkakan	<i>Oenanthe isabellina</i>	LC	KKA	—	KA	—	Y	+
Kuyrukkakan	<i>Oenanthe oenanthe</i>	LC	KKA	—	KA	—	G	+
Kara kulaklı kuyrukkakan	<i>Oenanthe hispanica</i>	LC	KKA	—	KA	—	G	+
Gökardıç	<i>Monticola solitarius</i>	LC	KKA	—	KA	—	Y	+
Karatavuk	<i>Turdus merula</i>	LC	KA	—	—	AH	Y	+
Tarla ardıcı	<i>Turdus pilaris</i>	LC	KA	—	—	KA	K	+
Öter ardıç	<i>Turdus philomelos</i>	LC	KA	—	—	KA	Y	+
Ökse ardıcı	<i>Turdus viscivorus</i>	LC	KA	—	—	KA	Y	+
Kızıl ardıç	<i>Turdus iliacus</i>	LC	KA	—	—	KA	K	+
Kamışbülbülü	<i>Cettia cetti</i>	LC	KKA	—	KA	—	Y	+
Yelpazekuyruk	<i>Cisticola juncidis</i>	LC	KKA	—	KA	—	Y	
Kindra kamışçım	<i>Acrocephalus schoenobaenus</i>	LC	KKA	—	KA	—	G	
Saz kamışçım	<i>Acrocephalus scirpaceus</i>	LC	KKA	—	KA	—	G	
Büyük kamışçın	<i>Acrocephalus arundinaceus</i>	LC	KKA	—	KA	—	G	
Sarı mukallit	<i>Hippolais icterina</i>	LC	KKA	—	KA	—	G	+
Maskeli ötleğen	<i>Sylvia melanocephala</i>	LC	KKA	—	KA	—	Y	+
Kara boğazlı ötleğen	<i>Sylvia rueppelli</i>	LC	KKA	—	KA	—	G	+
Küçük akgerdan	<i>Sylvia curruca</i>	LC	KKA	—	KA	—	G	+

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Table B. 8. Continued

Karaburun Rüzgar Enerji Santrali

Ornitolojik Rapor

Akgerdan	<i>Sylvia communis</i>	LC	KKA	—	KA	—	G	+
Boz ötleğen	<i>Sylvia borin</i>	LC	KKA	—	KA	—	T	+
Kara başlı ötleğen	<i>Sylvia atricapilla</i>	LC	KKA	—	KA	—	G	+
Orman çıvgını	<i>Phylloscopus sibilatrix</i>	LC	KKA	—	KA	—	G	+
Çıvgın	<i>Phylloscopus collybita</i>	LC	KKA	—	KA	—	Y	+
Sөгütbölübölü	<i>Phylloscopus trochilus</i>	LC	KKA	—	KA	—	T	+
Benekli sinekkapan	<i>Muscicapa striata</i>	LC	KKA	—	KA	—	G	+
Kara sinekkapan	<i>Ficedula hypoleuca</i>	LC	KKA	—	KA	—	G	+
Bıyıklı baştankara	<i>Panurus biarmicus</i>	LC	KKA	—	KA	—	Y	+
Uzun kuyruklu baştankara	<i>Aegithalos caudatus</i>	LC	KA	—	—	KA	Y	+
Çam baştankarası	<i>Parus ater</i>	LC	KKA	—	KA	—	Y	+
Mavi baştankara	<i>Parus caeruleus</i>	LC	KKA	—	KA	—	Y	+
Büyük baştankara	<i>Parus major</i>	LC	KKA	—	KA	—	Y	+
Anadolu sıvacısı	<i>Sitta krueperi</i>	NT	KKA	—	KA	—	Y	
Sıvacı	<i>Sitta europaea</i>	LC	KKA	—	KA	—	Y	+
Kaya sıvacısı	<i>Sitta neumayer</i>	LC	KKA	—	KA	—	Y	+
Çulhakuşu	<i>Remiz pendulinus</i>	LC	KA	—	—	KA	Y	
Sarıasma	<i>Oriolus oriolus</i>	LC	KKA	—	KA	—	G	
Kızıl sırtlı örümcekkuşu	<i>Lanius collurio</i>	LC	KKA	—	KA	—	G	+
Kara alınlı örümcekkuşu	<i>Lanius minor</i>	LC	KKA	—	KA	—	G	+
Kızıl başlı örümcekkuşu	<i>Lanius senator</i>	LC	KKA	—	KA	—	Y	+
Maskeli örümcekkuşu	<i>Lanius nubicus</i>	LC	KKA	—	KA	—	G	+
Alakarga	<i>Garrulus glandarius</i>	LC	—	—	—	AH	Y	+
Saksağan	<i>Pica pica</i>	LC	—	—	—	AH	Y	+

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Table B. 9. Continued

Karaburun Rüzgar Enerji Santrali

Ornitolojik Rapor

Küçük karga	<i>Corvus monedula</i>	LC	—	—	—	AH	Y	+
Ekin kargası	<i>Corvus frugilegus</i>	LC	—	—	—	AH	Y	+
Leş kargası	<i>Corvus corone</i>	LC	—	—	—	AH	Y	+
Kuzgun	<i>Corvus corax</i>	LC	KA	—	—	KA	Y	
Sığırcık	<i>Sturnus vulgaris</i>	LC	—	—	—	KA	Y	+
Alasığırcık	<i>Sturnus roseus</i>	LC	KKA	—	KA	—	G	
Serçe	<i>Passer domesticus</i>	LC	—	—	—	AH	Y	+
Sögüt serçesi	<i>Passer hispaniolensis</i>	LC	KA	—	—	KA	Y	
İspinoz	<i>Fringilla coelebs</i>	LC	KA	—	—	KA	Y	+
Dağ ispinozu	<i>Fringilla montifringilla</i>	LC	KA	—	—	KA	Y	
Küçük iskete	<i>Serinus serinus</i>	LC	KKA	—	KA	—	Y	+
Florya	<i>Carduelis chloris</i>	LC	KKA	—	KA	—	Y	+
Saka	<i>Carduelis carduelis</i>	LC	KKA	—	KA	—	Y	+
Ketenkuşu	<i>Carduelis cannabina</i>	LC	KKA	—	KA	—	Y	+
Sarı çinte	<i>Emberiza citrinella</i>	LC	KKA	—	KA	—	Y,G	+
Boz çinte	<i>Emberiza cineracea</i>	NT	KKA	—	KA	—	Y	+
Kirazkuşu	<i>Emberiza hortulana</i>	LC	KA	—	—	KA	G	+
Kızıl kirazkuşu	<i>Emberiza caesia</i>	LC	KKA	—	KA	—	G	+
Bataklık çintesi	<i>Emberiza schoeniclus</i>	LC	KKA	—	KA	—	Y	
Kara başlı çinte	<i>Emberiza melanocephala</i>	LC	KKA	—	KA	—	G	+
Tarla çintesi	<i>Miliaria calandra</i>	LC	KA	—	—	KA	Y	+

AÇIKLAMALAR :

	IUCN'e Göre Tehlike Durumu
	EN : Nesli Tehlike Altında
	VU : Hassas Durumda, Narin, Zarar Görebilir
	NT : Tehlike Altına Girmeye Yakın
	LC : En Az Endişe Veren, En Düşük Riske Sahip
	Avrupanın Yaban Hayatı ve Yaşam Ortamlarını Koruma Sözleşmesine Göre Koruma Durumu
	KA : Koruma Altında
	KKA : Kesin Koruma Altında
	KKA/TR : Türkiye'nin İtiraz Ettiği, Kesin Koruma Altına Alınmayacak Olan Tür
	Nesli Tehlikede Olan Yabani Hayvan ve Türlerinin Uluslararası Ticaretine İlişkin Sözleşmeye Göre Durumu
	Ek I : Nesli Yokolma Tehdidinde Olan Türler, Sadece İstisnai Durumlarda Ticaretine İzin Verilebilen Türler
	Ek II : Nesilleri Mutlak Yok Olma Tehlikesi Altında Olmamakla Birlikte, Nesillerini Tehlikeye Sokacak Kullanımları Engellemek İçin Kontrollü Ticarete Konu Türler
	MAKOSB : 2014-2015 Merkezi Av Komisyonu Kararı
	Orman ve Su İşleri Bakanlığınca avı yasaklanan türler
	Y: Yerli
	G: Yaz göçmeni
	T: Transit
	K: Kış göçmeni

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APPENDIX C

IMPORTANT BAT SPECIES IN WIND FARM PROJECT AREAS

Table C. 1. Defined and Possible Bat species and their Conservation Status in Karaburun Wind Farm Project Area

(Source: Environmental Assessment Report about Lodos Energy Wind Farm Project)

Scientific Name	Turkish Name	IUCN Classification
<i>Rhinolophus ferrumequinum</i>	Büyük Nal Burunlu Yarasa	LC
<i>Rhinolophus hipposideros</i>	Küçük Nal Burunlu Yarasa	LC
<i>Rhinolophus euryale</i>	Akdeniz Nalburunlu Yarasas	NT
<i>Rhinolophus mehelyi</i>	Mehelyi'nin nal burunlusu	VU
<i>Rhinolophus blasii</i>	Blasi'nin nal burunlusu	LC
<i>Myotis myotis</i>	Fare Kulaklı Bıyıklı Yarasa	LC
<i>Myotis emerginatus</i>	Çentikli Yarasa	LC
<i>Myotis blythii</i>	Fare Kulaklı Küçük Yarasa	LC
<i>Myotis nattererii</i>	Saçaklı Yarasa	LC
<i>Myotis aurescens</i>	Bozkır Yarasası	LC
<i>Myotis capaccinii</i>	Uzun Ayaklı Yarasa	VU
<i>Myotis mystacinus</i>	Bıyıklı Yarasa	LC
<i>Pipistrellus kuhlii</i>	Beyaz Şeritli Cüce Yarasa	LC
<i>Nyctalus sp.</i>	Akşamcı Yarasa	VU
<i>Pipistrellus nathushi</i>	Nathushi'nin Cüce Yarasası	LC
<i>Pipistrellus pipistrellus</i>	Cüce Yarasa	LC
<i>Hypsugo savii</i>	Savi'nin Cüce Yarasası	LC
<i>Eptesicus serotinus</i>	Geniş Kanatlı Yarasa	LC
<i>Eptesicus bottae</i>	Akdeniz Geniş Kanatlı Yarasası	LC
<i>Miniopterus schreibersii</i>	Uzun Kanatlı Yarasa	NT
<i>Tadarida teniotis</i>	Kuyruklu Yarasa	LC

APPENDIX D

PLANS ABOUT WIND FARM PROJECTS

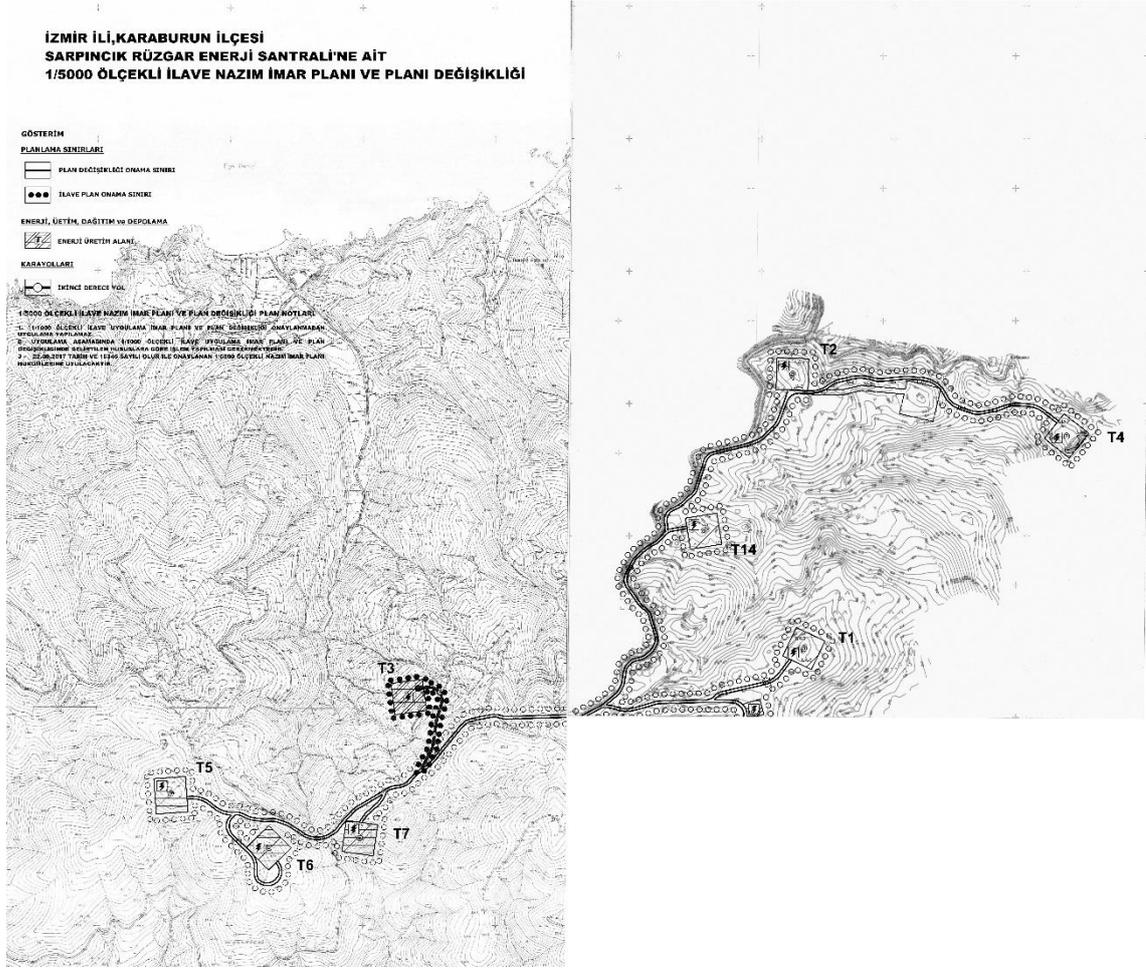


Figure D. 1. 1/5000 Scaled Added Implementation Plan for Sarpıncık Wind farm
(Source: Ministry of Environment and Urbanization Website)

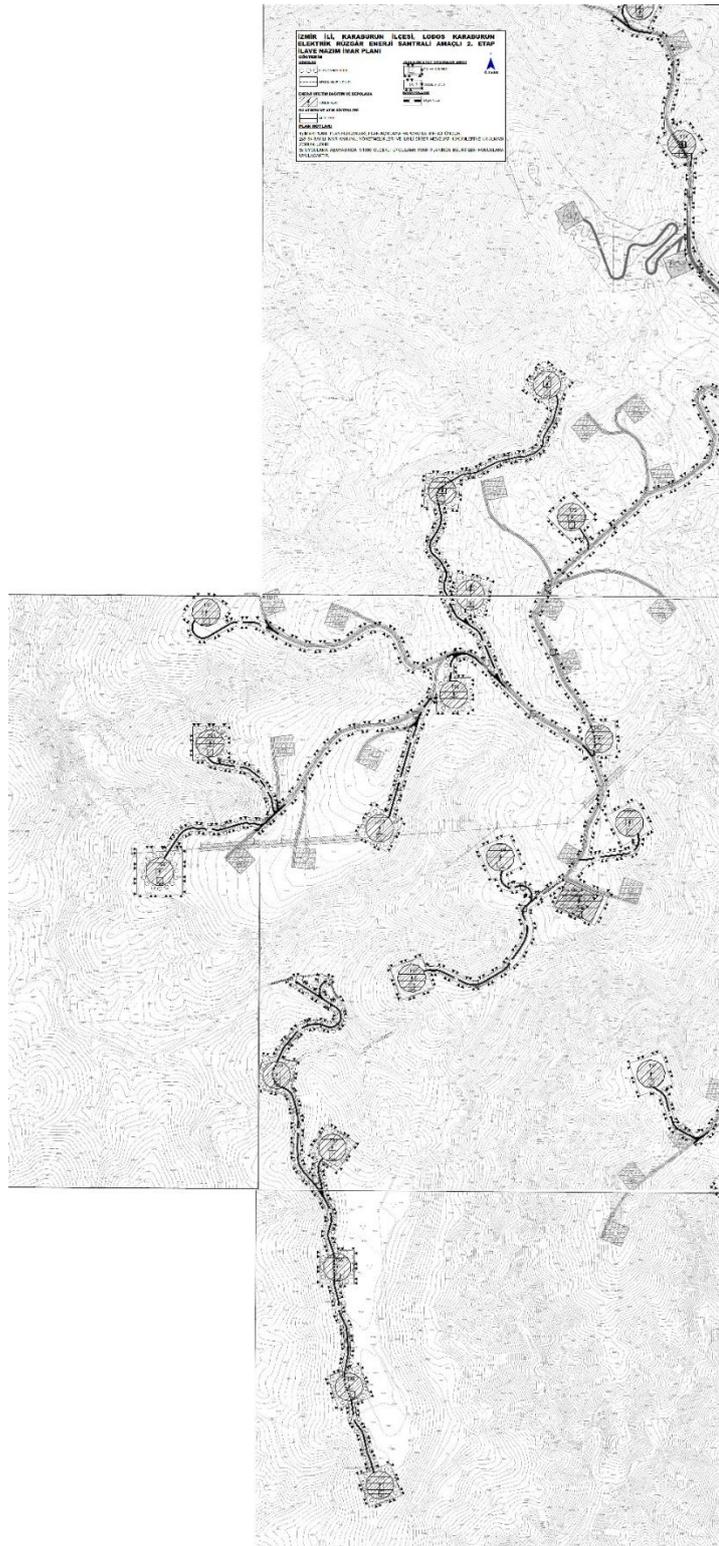


Figure D. 2. Second Phase of 1/5000 Scaled Added Implementation Plan for Karaburun Wind Farm

(Source: Karaburun City Council)

APPENDIX E

ALLOCATED PLOTS FOR INDUSTRIAL OLIVE PRODUCTION

Table E. 1. List of Allocated plots for Private Forestation

(Source: Karaburun Directorate of National Estate)

Assignee	Neighborhood	Parcel No	Total Parcel Area (m ²)	Allocated Parcel Area (m ²)
Berat gülcan	Parlak	102/310	521.125	1.140.000
Berat gülcan	Parlak	102/307	805.500	
Ali çamur	Parlak	102/282	499.750	221.875
Kybele zeytincilik	Parlak	102/283	736.750	470.000
Fatma gülcan vd.	Parlak	102/284	342.610	828.785
Fatma gülcan vd	Parlak	102/299	749.875	
Olivin tarım ürünleri	Parlak	102/264	318.500	485.000
Olivin tarım ürünleri	Parlak	102/265	166.500	
Ş. Güngör, c. Özhan	Parlak	102/260	248.750	125.000
Şerif konya	Parlak	114/16	196.500	196.500
Bellis tarım	Parlak	116/319	517.000	352.000
Bellis tarım	Parlak	116/320	298.250	153.250
Bellis tarım	Parlak	102/258	587.500	587.500
Bellis tarım	Parlak	102/253	487.750	593.250
Bellis tarım	Parlak	102/261	400.500	
Şargaz a.ş.	Parlak	101/35	597.500	220.000

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Table E. 2. (Continued)

Işıl-atahan atay	Parlak	101/37	1.184.000	700.000
Şargaz a.ş.	Parlak	101/34	243.500	187.300
Ali çoşkun	Parlak	116/323	396.250	130.000
Ali çoşkun	Parlak	116/324	427.750	115.000
Mehmet çamur	Parlak	102/319	385.000	625.200
Mehmet çamur	Parlak	102/320	389.250	
Tevhit kutay ve dig.	Parlak	101/33	407.000	407.000
Necati altındiş	Parlak	102/139	24.841	
Necati altındiş	Parlak	102/145	11.496	
Olivin ltd. Şti.	Bozköy	1101	753.790	753.790
Olivin ltd. Şti.	Bozköy	1153	867.600	291.250
Öztinox a.ş.	Haseki	1247	635.250	
Öztinox a.ş.	Haseki	1249	503.000	
Gazi.kalkan ve hasan özakıncı.	Sarpıncık	1355	1.833.122	250.000
Adnan şenkul	Yayla	175/82	150.250	150.250
Aysun şenkul	Yayla	171/73	437.500	215.000
Aysun şenkul	Yayla	171/74	535.750	65.000
Mustafa Şenbahar	Yayla	163/37	902.250	570.000
Haldun sulanç	Yayla	171/64	4.292	70.000
Haldun sulanç	Yayla	171/65	5.250	
Haldun sulanç	Yayla	171/76	91.250	
A. Yıldırım şenkul	Yayla	175/75	240.000	215.000
Adnan şenkul	Yayla	175/78	132.500	450.000
Adnan şenkul	Yayla	175/79	197.000	
Adnan şenkul	Yayla	175/80	499.250	

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Table E. 3. (Continued)

Adnan Őenkul	Yayla	175/84	204.500	
A sakbaŐ, s. KirazoĐlu	Salman	157/57	468.000	1.288.250
A sakbaŐ, s. KirazoĐlu	Salman	157/58	264.500	
A sakbaŐ, s. KirazoĐlu	Salman	157/59	183.750	
A sakbaŐ, s. KirazoĐlu	Salman	157/62	322.250	
A sakbaŐ, s. KirazoĐlu	Salman	157/63	292.750	
Ő. Gngr, c. zhan	Salman	157/66	267.000	267.000
A. TavŐan, m. nal	Salman	157/52	340.000	260.000
YaĐmur kınay	Salman	157/60	493.250	779.250
YaĐmur kınay	Salman	157/61	286.000	
Nihat tavŐan ve diĐ.	Salman	161/13	93.250	59.250
Nihat tavŐan ve diĐ	Salman	161/14	62.750	38.750
Ali amur	Salman	158/86	192.250	162.000
Tevhit ktay	Salman	158/82	145.625	145.625
Mehmet amur	Salman	158/84	290.500	290.500
Mehmet amur	Salman	158/31	6.625	6.625
B. Gltekin ve diĐ.	Salman	158/83	324.375	180.000
Kybele zeytincilik	Salman	158/79	389.375	389.375
	Salman	158/80	248.625	248.625
	Salman	114/11	177.250	177.250

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Table E. 4. (Continued)

Tarık çelti	Salman	152/32	20.250	20.250
Tarık çelti	Salman	152/33	34.375	34.375
Hasan özakıncı	Salman	151/148	141.750	102.750
Rıdvan s. Ve ş. Peker	Haseki	1239	274.000	274.000
Halil bozuklu	Salman	151/149	55.750	55.750
Mustafa ergen	Salman	151/138	100.250	100.250
Özgür akarsu	Salman	151/139	64.500	64.500
Ali ihsan esmeroğlu	Sarpıncık	1366	37.697	37.697
Ali ihsan esmeroğlu	Sarpıncık	1375	20.625	20.625
Fadime türker	Sarpıncık	1344	20.000	20.000
Fadime türker	Sarpıncık	1349	17.062	17.062
Fadime türker	Sarpıncık	1350	14.125	14.125
Timur kırıkoyalı	Yayla	170/8	34.779	114.268
Timur kırıkoyalı	Yayla	170/62	60.066	
Timur kırıkoyalı	Yayla	170/63	15.304	
Timur kırıkoyalı	Yayla	170/64	4.118	
İ. Yürür ve a. Ürkmez	Yayla	175/83	62.500	

APPENDIX F

ALLOCATED OR EXPROPRIATED PLOTS FOR WIND FARM INVESTMENTS

Table F. 1. List of Allocated or Expropriated Plots for Wind Farms

(Produced Based on the Data of Karaburun Directorate of National Estate, Karaburun Cadastral Unit and Plot Information System)

Wind Farm Name	Neighbourhood	Parcel No	Proprietor	Qualification	Expropriated Part Square (m2)	Percentage of Expropriated Part (%)	Aim
Salman RES	Sarpıncık	15/1312	Private				
Salman RES	Sarpıncık	16/1253,1263	Private				
Salman RES	Sarpıncık	15-16/1262	Private				
Salman RES	Parlak	116/323		Raw Soil			Road
Salman RES	Parlak	116/325		Raw Soil			Turbine and Road
Lodos - Karaburun RES	Yaylaköy	175/47	Private	Field	1.355.04	28.87	Turbine
Lodos - Karaburun RES	Yaylaköy	175/48	Private	Field	3.816.56	33.32	Turbine and Road
Lodos - Karaburun RES	Yaylaköy	175/49	Private	Field	1.065.4	9.31	Turbine
Lodos - Karaburun RES	Yaylaköy	175/63	Private	Field	248.00	2.2	Turbine
Lodos - Karaburun RES	Yaylaköy	163/36	Private	Field	896.00	10.86	Turbine
Çalık - Sarpıncık RES	Hasseki	18	Private	Field	1.007.31	11.17	Road
Çalık - Sarpıncık RES	Hasseki	32	Private	Raw Soil	7.589.41	6.85	Turbine and Road
Çalık - Sarpıncık RES	Sarpıncık	TH1	State Treasury	Stream	5.64	100	Road
Çalık - Sarpıncık RES	Sarpıncık	TH2	State Treasury	Stream	3.655.73	100	Turbine
Çalık - Sarpıncık RES	Sarpıncık	1015	State Treasury	Raw Soil	696.26	4.8	Turbine and Road
Çalık - Sarpıncık RES	Sarpıncık	1307	State Treasury	Vineyard	1.016.31	83.37	Turbine and Road
Çalık - Sarpıncık RES	Sarpıncık	1341	State Treasury	Raw Soil	8.896.53	15.34	Road
Çalık - Sarpıncık RES	Sarpıncık	1344	State Treasury	Field with Olive Trees	9.675.07	48.38	Road
Çalık - Sarpıncık RES	Sarpıncık	1350	State Treasury	Field with Olive Trees	876.27	6.2	Turbine and Road
Çalık - Sarpıncık RES	Sarpıncık	1351	State Treasury	Raw Soil	1.423.54	6.9	Turbine and Road
Çalık - Sarpıncık RES	Sarpıncık	1355	State Treasury	Field	16.425.27	0.9	Turbine and Road
Çalık - Sarpıncık RES	Sarpıncık	1356	State Treasury	Raw Soil	19.917.98	1.6	Turbine and Road
Çalık - Sarpıncık RES	Sarpıncık	1386	State Treasury	Raw Soil	18.329.38	7.44	Turbine and Road
Çalık - Sarpıncık RES	Sarpıncık	1387	State Treasury	Raw Soil	40.764.93	13.43	Turbine, Road and Switchyard
Lodos - Karaburun RES	Yaylaköy	159/112		Field with Olive Trees			Road
Lodos - Karaburun RES	Yaylaköy	159/114		Raw Soil			Road
Lodos - Karaburun RES	Yaylaköy	160/80		Raw Soil			Turbines and Road
Lodos - Karaburun RES	Yaylaköy	160/81		Raw Soil			Turbines and Road
Lodos - Karaburun RES	Yaylaköy	160/82		Raw Soil			Road
Lodos - Karaburun RES	Yaylaköy	160/84		Raw Soil			Turbines and Road
Lodos - Karaburun RES	Yaylaköy	162/38		Raw Soil			Turbines and Road
Lodos - Karaburun RES	Yaylaköy	163/37	Private	Field with Olive Trees and Raw Soil			Turbine and Road
Lodos - Karaburun RES	Yaylaköy	168/42		Raw Soil			Road
Lodos - Karaburun RES	Yaylaköy	168/43		Vineyard			Road

(cont. on next page)

Table F. 2. (Continued)

Lodos - Karaburun RES	Yaylaköy	168/44		Field with House		Road
Lodos - Karaburun RES	Yaylaköy	168/66		Raw Soil		Road
Lodos - Karaburun RES	Yaylaköy	171/36		Field		Project
Lodos - Karaburun RES	Yaylaköy	171/73		Field and Raw Soil		Road
Lodos - Karaburun RES	Yaylaköy	171/74		Raw Soil		Turbine and Roas
Lodos - Karaburun RES	Yaylaköy	171/75		Raw Soil		Turbine and Roas
Lodos - Karaburun RES	Yaylaköy	171/76		Field with Olive Trees and Raw Soil		Turbine and Roas
Lodos - Karaburun RES	Yaylaköy	172/66		Raw Soil		Road
Lodos - Karaburun RES	Yaylaköy	173/16	Ministry of Forest	Forest		
Lodos - Karaburun RES	Yaylaköy	175/73		Field		Project
Lodos - Karaburun RES	Yaylaköy	175/77		Scrub and Raw Soil		Project
Lodos - Karaburun RES	Yaylaköy	175/78		Field and Raw Soil		Turbine and Road
Lodos - Karaburun RES	Yaylaköy	175/79		Field and Raw Soil		Road
Lodos - Karaburun RES	Yaylaköy	175/80				
Lodos - Karaburun RES	Yaylaköy	176/3		Vineyard		Project
Lodos - Karaburun RES	Yaylaköy	176/4		Field		Project
Lodos - Karaburun RES	Yaylaköy	176/8		Field		Road
Lodos - Karaburun RES	Yaylaköy	176/9		Field		Project
Lodos - Karaburun RES	Yaylaköy	176/10		Vineyard and Field		Project
Lodos - Karaburun RES	Yaylaköy	176/11		Raw Soil		Road
Lodos - Karaburun RES	Küçükbahçe	1396		Raw Soil		Road
Lodos - Karaburun RES	Küçükbahçe	1404		Raw Soil		Road
Lodos - Karaburun RES	Küçükbahçe	1405		Raw Soil		Road
Lodos - Karaburun RES	Küçükbahçe	1406		Raw Soil		Road
Salman RES	Sarpıncık	789				Road
Salman RES	Sarpıncık	911		Vineyard and Field		Road
Salman RES	Sarpıncık	917		Field with House		Road
Salman RES	Sarpıncık	918				
Salman RES	Sarpıncık	922				
Salman RES	Sarpıncık	935		Pasture		Road
Salman RES	Sarpıncık	936		Pasture		Road
Salman RES	Sarpıncık	938				Road
Salman RES	Sarpıncık	939		Field with Olive Trees		Road
Salman RES	Sarpıncık	940		Field with Olive Trees		Road
Salman RES	Sarpıncık	941		Field with Olive Trees		Road
Salman RES	Sarpıncık	955		Field		Road
Salman RES	Sarpıncık	1081				
Salman RES	Sarpıncık	1148				
Salman RES	Sarpıncık	1230		Pasture		Road
Salman RES	Sarpıncık	1231		Pasture		Road
Salman RES	Sarpıncık	1248		Field		Road
Salman RES	Sarpıncık	1253				
Salman RES	Sarpıncık	1254		Field with Olive Trees		Road
Salman RES	Sarpıncık	1300		Pasture		Road
Salman RES	Sarpıncık	1374		Pasture		Road
Salman RES	Sarpıncık	1380		Pasture		Road