

Czech University of Life Sciences Prague

Faculty of Environmental Sciences

Department of Landscape Planning



Structural Plan for Samandaž Coastal Region

Diploma Thesis

Author: Bc. Yonca Ray

Thesis Supervisor: Ing. Vojtěch Novotný, Ph.D.

© 2019 CULS Prague

CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Environmental Sciences

DIPLOMA THESIS ASSIGNMENT

Yonca Ray

Landscape Planning

Thesis title

Structural plan for Samandag coastal region

Objectives of thesis

The goal of the thesis is to create structural plan for sustainable tourism of Samandag coastal region.

Methodology

The student will create a literature review in spatial planning that will specifically focus on tourism and open-air recreation and their impacts on local population, the environment and cultural identity. She will then conduct thorough analyses of the region proper within its wider context. The analyses will result in definition of touristic potential of Samandag (i.e. the scope and scale of its tourism development) and a commented map of potentials and challenges. The design phase of the thesis will first subdivide the region into distinct landscapes of different defined target qualities along with measures to achieve those.

The proposed extent of the thesis

up to 70 pages alongwith adequate graphics (schemes, photodocumentation, etc.)

Keywords

Samandag, tourism, environment, landscape

Recommended information sources

GARTNER, W., C., LIME, D., W. Trends in Outdoor Recreation, Leisure, and Tourism. Wallingford: CABI Publishing, 2004. ISBN 0-85199-403-2

GROVES, D., G., FISCHBACH, J., R., KNOPMAN, D., JOHNSON, D., R., GIGLIO, K. Strengthening Coastal Planning: How coastal regions could benefit from Louisiana's planning and analysis framework. Cambridge: RAND, 2014. ISBN 978-0-8330-8455-2

HAMMIT, W., E., COLE, D., N. Wildland Recreation, Ecology and Management. New York: John Wiley and sons, 1998. ISBN 0-471-19461-1

KAY, R., ADLER, J. Coastal planning and management. London: Taylor&Francis, 2005. ISBN 0-415-31773-8

Expected date of thesis defence

2018/19 SS – FES

The Diploma Thesis Supervisor

Ing. Vojtěch Novotný, Ph.D.

Supervising department

Department of Applied Geoinformatics and Spatial Planning

Electronic approval: 25. 3. 2019

doc. Ing. Petra Šímová, Ph.D.

Head of department

Electronic approval: 26. 3. 2019

prof. RNDr. Vladimír Bejček, CSc.

Dean

Prague on 12. 04. 2019

Declaration

I hereby declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree.

Except where states otherwise by reference or acknowledgment, the work presented is entirely my own.

Yonca RAY

In Prague on 18th of April

Acknowledgment

Firstly, I would like to express my sincere gratitude to my supervisor Ing. Vojtěch Novotný, Ph.D. for his guidance, motivation, and patience.

I would also like to express my warm thanks to Kun Sang and Alexandra Christina Dimitri for their priceless constructive criticism and friendly advice.

Finally, I must express my gratitude to my parents Ata Ray-Lemia Ray and my siblings for providing me with support and continuous encouragement throughout life in general. I am grateful for their presence.

Structural Plan for Samandağ Coastal Region

Abstract

In this case study we improved the structural plan of the region and proposed future ideas. We tried to manage the land use in terms of existing potential (tourism, ecological conditions, etc). In each stage of planning the protection of natural sites has been taken into count.

Samandağ is a coastal region in the southern part of Turkey. The valley of civilizations shows us already from Prehistory that the city was the main channel between continents. That mobility brought a lot of variance in terms of geology, culture, etc. Besides all the factors above, late history played a big role in each change in the region.

The main idea of this study is to increase touristic attraction by rehabilitation of the connection between the beach and the surrounding (villages, towns , cities and overseas) and to improve the structural plan of the coastal zone study site. For this study case the literature review has been performed and a few study cases have been reviewed. As a metadology swot analysis of the site played a big role in terms of creation of the land use analysis map and the structural planning map.

The conclusion of this study represents how big touristic potential can be shown in a better way by improved connection between localities and rehabilitation of the structural plan of the site. The improvement of the coastal zone structure is merged with improved connection projects to support the rising touristic potential needs.

Keywords: Samandağ, Coastal City, Tourism, Structural Plan

Table of Content

1. Introduction	1
2. Aim and Methodology	3
3. Literature Review	5
3.1. Urbanization in Coastal Regions.....	5
3.1.1. Impact of Urbanisation in Coastal Regions	6
4. Planning Strategies in Turkey	7
4.1. History of Urban Planning In Turkey	7
4.2. Planning System in Turkey.....	10
4.3. Cases of coastal design	16
5. Practical Part	19
5.1. Study Area.....	19
5.1.1. Population, Climate and Urbanization.....	22
5.1.2. SWOT Analysis of The Study Area	29
5.1.3. History and Culture	33
5.1.4. Transportation Land Use and Social Services.....	39
5.2. Planning Solutions	44
6. Conclusion	48
7. Discussion	51
8. References	53
9. List of Figures	57
10. List of Tables.....	58
11. List of Photos.....	59

1. Introduction

Coastal zones and marine environments are especially inhabited by beautiful landscapes, rich ecosystems with rich biodiversity. This results in their great attractiveness for tourism, but balance is required in managing that potential for a sustainable living environment.

Coastal zones are combinations of different types of lands. The climate, soil structure, geographical location affect the characteristics of the land type, and many lands along the coasts are highly productive.

The presence of the sea is a point of attractiveness for human settlements which cannot be ignored and it has a big role in creating the shape of the coastal zone. Humanity, throughout history, has chosen the coast as a first place for their settlement. They shaped the coastal zones according to their culture and living requirements, and took advantage of the productive soil, existence of rich flora-fauna and location. Humans on those lands produced and consumed the sources.

Today, when we analyze the changes in the land use of the coastal zones, we will have the chance to see how they get shaped. An important point is that the co-existence of all these natural resources and human activities creates conflict between land use and the coastal creatures.

The attractiveness of the sea increased human settlements in the coastal zones. Attractiveness gained an accelerating momentum throughout history. From the beginning of the planning strategies, planners began to evaluate the changes and standardize them in order to create a balance between coastal creatures and human activities. Being in the coastal zone of a city in terms of development has always been an advantage and this point has always attracted planners. Coastal Zones, because of the existence of nature, are a little bit more sensitive in planning, since there are many conditions that need to be taken care, like natural conditions, humans and creatures.

Besides, a city on the coastline has always been an important area in terms of economic contribution. Tourism is one of the most important points in that contribution, the connectivity of the sites and the use of the land are what increase

the value of the coastal zone. Planning strategies should include all the factors of the coastal zone to make the living sustainable and attractive enough. The character of the site, history, geography, customs and traditions, ecological conditions, socio-economic conditions are the factors needed to be under evaluation.

In this case study the important point is considering all combinations of the factors during the planning stages.

2. Aim and Methodology

The aim of the study is to improve the structural planning in Samandağ Coastal Zone, which contains the three main touristic beach sites in one coast. The improvement planning is based on the touristic attractions in the region combined with the protection of the natural areas. The revitalization from the structural planning of the coastline will parallel the improvement of tourism along the coast. To increase tourism we will need to better the connectivity between the main touristic areas, which are the beach points, and the other villages and neighbouring towns with touristic potential. This enhanced connectivity will be playing a milestone role in the efficiency of the planning. In this case, definitely, connectivity should be based on improving the accessibility between potential touristic places and localities around, accessibility for or all organism, humans and animals.

Improving the structural plan of the site will be suggested according to the analysis map of the current land use, and the conceptual plan will be the conclusion of this case study.

The protection of degraded land, of the natural protected areas, increasing connectivity between the beach sides, reviewing the infrastructure and social leisure places and other facilities on the site will be the main point of the study. To explore alternative ways about how to harmonise exciting legislation, natural sources, and socio-economic factors through structural planning is going to be the main focus of this study case.

The way to do it will be through literature review on urbanization on the coastal zones, by presenting the Planning System in Turkey and mentioning the changes throughout history. Some case studies will be represented as an example of improvement of the coastal zones based on different topics. The following step will be introducing the study area. Swot analysis will help to define and understand potentials, opportunities, threats and weaknesses of the site. In this way we will be able to create the analysis map and the conceptual plan map thanks to the criteria which will be defined in swot analysis. The area will be explained with detailed chapters including history, geography, culture, etc. Analysis maps will be based on improving the touristic value of the beach by strengthening the accessibility to the

main potentially touristic points. Land use maps will be created for the whole area, which is divided in three main study points. Those are; Çevlik, Hıdır Tomb and Meydan. The analysis maps will be created based on the land use, the weaknesses and the potential problems; the current situation will be defined in this analysis map as well. The conceptual plan will be created as the last map with the purpose of showing the improved area. Adobe photoshop and GIS (geographical information system) will be used for creating and adjusting the analysis map.

3. Literature Review

3.1. Urbanization in Coastal Regions

Coastal Zones have always attracted human in terms of settlements. More than a billion people live in low-lying coastal regions since ancient time. The coastal regions are comprised of two opposite pole: water and land. One side of that region contains the coastal ecosystem and the other side is delimited with expanding through all the land¹ (Gedikli, 2011).

When we look at the history of civilization, being near the coast as a region provides a great contribution to cities and countries in terms of development. Since then, those regions have been one step ahead compared to other regions, having a better urbanization and continuous growth of their cities during the same time frame. As we know from history the major cities are located in the coastal zones and any other water bodies. Coastal zones belong to the area which is the most productive in the world. They are historically a natural place for human settlements as they typically offer ready access to water and fertile soil and also have never ceased to attract people, and urban expansion in recent years has become quite rapid.²(IHDP, 2015).

No wonder man has been colonizing sea coasts since the very dawn of civilization and has grown crucially dependent on their resources coming both from land and sea. The fertile coastline plain, including the numerous great river deltas, abundant food reserves of this zone, as well as the opportunity, first to see the world with its variety of civilizations and cultures and then to exchange goods with overseas countries through building of harbors, shipyards, vessels, and merchant fleets were the main motives for coastal settlement and with time for investing huge capital in the development of the industry and infrastructure in this zone to exploit its riches and reap profits. Moreover, the beauty of the seaside landscape and the climate of many

¹ Gedikli,B., 2011 :Live the Coast Understand the Coast. Middleeast Technical University, Coastal Engineering Semposium, Ankara, 24.

² IHDP, 2015. Coastal Zones and Urbanization. International Human Dimension programme on Global Environmental Change, 4.

coasts strengthened this motivation and have ultimately attracted millions of people as tourists and holiday-makers.³ (Rotnicki, 1995)

Urbanization is shifting the population from rural to the urban landscape. The percentage of urbanization increases gradually in time. The growth of urbanization is mainly based on some factors like the difference between rural and urban productivity levels and the change of the rapid productivity in the cities. Adaptation of the growth of society changes in terms of socio-economic, cultural and environmental cases. Widespread urbanization is a recent phenomenon. In 1900 just 15 percent of the world's population lived in cities. The 20th century transformed this picture, as the pace of urban population growth accelerated very rapidly in about 1950. Sixty years later, it is estimated that half of the world's people lives in cities⁴ (Spence, 2009).

Coastal regions, are areas that are home to a large and growing proportion of the world's populations. Today approximately 3 billion people, about half of the world's population, live within 200 kilometers of a coastline. By 2025, that figure is likely to double⁵ (Creel, 2003). The urbanization in the coast world cities is increasing. 17 largest cities are located near the coast. Two-fifths of the populations of those cities are located near the coastline⁶ (Tibbetts, 2002).

3.1.1. Impact of Urbanisation in Coastal Regions

The urbanization in coastal cities has provided advantages, but has also caused lots of disadvantages. The high density of population brought many economic benefits like transportation links, industrial and urban development, tourism and food production. But at the same time the increment of the population, the growth of the economy, technology and tourism are threatening the ecosystems on the coast. As we mentioned above, those advantages affect the environment by human activities in the role of disadvantages. There is also one more point that we cannot skip and cannot

³ Rotnicki, K., 1995: The Coastal Zone-Present, Past and Future. Journal of Coastal Research. Special Issue no. 22.pp. 3-13.

⁴ Spence, M.,2009 : Urbanization and Growth. Commission on growth development, 2.

⁵ Creel, L., 2003 : Ripple Effects : Population and Coastal Regions. Population Reference Bureau Measure Communication, 1.

⁶ Tibbetts, J., 2002: Coastal Cities: Living on the Edge. Environmental Health Perspectives , 110:A674-A681.

avoid: the effects of natural events like climate change. When we put all those conditions under consideration, the coastal zones need an arrangement to favour both humans and nature. For that reason would be beneficial to review the potential existing risk around the coastal zones and mitigate it through all possible solutions during planning.

Modern urban planning has arisen in response to specific social and economic problems, which in turn were triggered by the Industrial Revolution at the end of the eighteenth century⁷ (Jones and Hall 2011).

Coastal regions are usually based on the area between 60 to 200 kilometer, and include coral reefs, dunes, beaches, mangroves, marshes. The term “coastal regions” also covers marine fisheries because the bulk of the world’s marine fish harvest is caught or reared in coastal waters. Coastal areas help prevent erosion, filter pollutants, and provide food, shelter, breeding areas, and nursery grounds for a wide variety of organisms. Coastal regions also provide critical inputs for industry, including water and space for shipping and ports; opportunities for recreational activities such as fishing and diving; and other raw materials, including salt and sand (Creel, 2003).

The high density of the population, the heavy fisheries, pollution from industry, agriculture, and urbanization are the reasons for degradation of coastal and marine ecosystems. Climate change is another reason for the coastal zones to be under threat.

4. Planning Strategies in Turkey

4.1. History of Urban Planning In Turkey

19 the century for humankind is a century with experiences about modernization. At the beginning of that era, the Industrial Revolution around Europe caused the rapid growth of population in cities. Since then the cities have been classified according to the form they take, as industrial cities, high modernist cities or neoliberal city. This explanation

⁷Jones, T.M., Hall, P.2011: Urban and Regional Planing. Routldge,London, 304 p.

will take us to examine the basic history of urban planning and how it got shaped in Turkey. The examples are from Istanbul city, as the changes started here and spread during that era to the rest of the country ⁸(Köksal, 2016).

Planning strategies change from country to country according to economic, cultural, social, political, natural and other existing conditions. The understanding of the planning in Turkey always needed an explanation and clarification. If we were to analyze how planning started to have a shape in Turkish land, we need to split it into two different time periods: one is between 1850-1940 and the second is from post-1940s to the present. Turkey went through an urban transformation in this period and the main transformative factor was fires. Cities constructed of wood had an unregulated development and caught fire in large proportions, so to plan and renew them was an improvement that started step by step. In 1850 new regulations prohibited the construction of wooden buildings, requiring all structures to be of stone or brick. The first municipality established in İstanbul was inspired by the French system. The French engineer Bouvard made a plan of İstanbul at the request of the Sultan Abdülhamit II. But the plan was not successful enough to be applied in practice, because Bouvard actually never visited İstanbul. The plan had been prepared based on the reference photos of the city.

Next improvements were around the 1870s. The foreign cartographer was replaced by local engineers, and this was an important milestone in the urban planning development in Turkey. A commission was established, significant money was given to the order, the city business center was reorganized and the sewerage infrastructure realized.

The increased usage of cars in urban transportation has played a very important role. Before 1825, only the Sultan used cars in the city. Other persons were not allowed to drive. The expansion of the car began after 1850. In the new era, which is 1870-1880, European capitalism began and the capitals started exporting. The Ottomans were also affected, and this could be observed in the new types of constructions of tunnels and trams. From now on we can say İstanbul became a new changing city, with modernization starting to have a significant mark.

⁸ Köksal, Y., 2016: CSHS 517 Ottoman State and Society. Bilal Akar, MA, Comperative Studies in History and Society, 5.

After the 1900s and during the war, the city's appearance changed and took a new shape. This time totally new topics appear in the cities; the suburbs were formed. Immigrants and their placement affected the shape of the city and accelerated urban growth. After the post-war, immigrants were settled in the city, and grid-planned neighborhoods began to emerge.

Urbanism in the Early Republican Period in Turkey had a hybrid character that was formed by the merging of historical accumulation, political ideal and European urbanism⁹ (Karakaya, 2017). As mentioned above, between 1840-1940 planning was inspired by urban development in Europe, which we call modernization. Actually, it would be fitting to say the westernization of urban planning in Turkey is a continuous reformation movement since 1789¹⁰ (Erkan, 2010). While urbanization was steadily increasing during 1950s-70s, it was during the 1980s that Turkey experienced a major surge of rural migrants to cities, causing rapid expansion of informal areas in urban settlements¹¹ (Candas et al. 2016)

After 1980-90s the understanding of urban planning is improving, and municipalities started to spread widely. Master plans began to be created for many cities. Knowledge about urbanization, cartography, topography, geography spreaded and became more professional. Local engineers appear, who visited the main capitals like Vienna, Paris, Berlin, Bucharesti, Lyon. It started between 1908-1918 The chief engineer of the municipality of Lyon prepared a planning report for İstanbul, and the conflict between modernism and conservatism was born. Also, a new component in urban planning was introduced - transportation – which became the new topic for engineers.

In different planning periods during the 1940s, the developments in the city planning practice and conceptual framework brought along the concept of *regional planning*. In 1940, the first regional planning, although very limited in scope, was made. The relationship between planning and sociology came up in the 1935s.

⁹ Karakaya, E., 2017: Policy-oriented urban Planning in 1930s in Turkey : izmit Urban Plan. ITU A/Z. Vol 14 No 2. July 2017 . 9-20, 18.

¹⁰ Erkan, N. E., 2010: Urban Planning in Turkey as Process of Translation. Routledge Taylor and Francois Group, 191.

¹¹ Candas, E., Flacke J. And Yomraalioğlu T., 2016: Understanding Urban Regeneration in Turkey. The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XLI-B4, XXII ISPRS Congress, 669.

In 1946, the first clues came out of the slums. In the framework of the Modernist legitimacy of the 1930s, the Turkish intellectual was not ready to accept it yet, but in time both him and society would accept the new shape of the city. The idea of city planning and the establishment of the relevant institutions appeared only in the first half of the 1930s in the Republic. In these years there were five consecutive laws. These five laws, 1580 numbered Municipalities Act, one of which was published in 1930, the General Public Health Law no. These two fundamental laws were followed by the Law on Building and Roads, the Law on Municipalities, the Law on recognition of the professions in engineering and architecture. These are actually modernist laws. I interpret them as the institutional structure that draws the legitimacy framework of living in the city. If we were to summarize in a few lines the urbanization time in Turkey after the revolution, we could classify it in 4 different terms which are: The First urbanization process 1923-1950, the industrial process 1950-1970, followed by Metropolitization from 1980 to 2000, and today's Urbanization from 2000 till present.

4.2. Planning System in Turkey

The background of Turkey's spatial planning system is based on the second half of the 19th century in the Ottoman time. During 1920-1930s the planning style was more like spatial arrangements rather than official planning. Urban spatial planning was first institutionalized after the acceptance of the first Development and Zoning Law in 1956 numbered as 6785 ¹²(Dede, 2016) and it was very important for the urbanization process in Turkey. The institution had a fast growth in the following years.

The planning system in Turkey includes the audit, legal regulation and comprehensive, clear statements. The most important point is the role of public interest in the last decisions. The system has similarities with the American and German styles. In the German Planning system the decisions are generally taken at local level. The government has a strong role in case the problems cannot be solved by local

¹² Dede, O. M., 2016: The A nalysis of Turkish Urban Planing Process Regarding Sustainable Urban Development. [http:// dx.doi.org/10.5772/63271](http://dx.doi.org/10.5772/63271), 269.

authorities.¹³ (Michael et al 2009). Additionally, we should mention that the law on the structures and roads publicized in 1993 was taken from Germany¹⁴ (Neşe et al 2018).

The current national urban policy is the Integrated Urban Development Strategy and Action Plan for Sustainable Urban Development (KENTGES) 2010-2023. Since 2010 the purpose of the planning is to create more livable cities. There are three main purposes. Those are:

- Restructuring the spatial planning system,
- Improving the quality of space and life in settlements and
- Strengthening the economic and social structure of settlements.

The agenda is to evaluate and provide solutions on urbanization and planning at national and local level. This institutional and legislative reform resulted in the establishment of the Ministry of Environment and Urbanization in 2011. Economic development, spatial structure, human development, environmental sustainability and climate resilience are extensively covered by the current urban policy.

¹³ Oxley, M., Brown, T., & Nadin V., 2009: Review of European Planning Systems. De Montfort University Leicester, 24.

¹⁴Bakır, Y., N., & Dogan U., Güngör K. M., 2018: Planned development versus unplanned change: The effects on urban planning Turkey. Elsevier, Land Use Policy 77 (2018) 310–321, 312.

Plan Name	Area Of Planning	Scale	Plan Development Authority	Plan Approval Authority
Spatial Strategy Plan	Country and Region	N/A	Ministry of environment and urbanization	Ministry of environment and urbanization
Regional Plan	Region	N/A	Ministry of development (DPT)	Ministry of development
Provincial Environmental Plan	The area within the provincial borders	N/A	Special provincial	Special provincial administration + relevant municipality
Metropolitan Development Plan	Metropolitan area	N/A	Ministry of environment and urbanization	Ministry of environment and urbanization
Environmental Plan	Basin and region(without overlapping with provincial borders, within the provincial borders or in areas covering multiple cities)	1/50.000 and 1/100.000	Ministry of environment and urbanization	Ministry of environment and urbanization
Master Development Plan	Metropolitan municipality areas	1/5.000 and 1/25.000	Metropolitan municipality	Metropolitan municipality
Master Development Plan	Municipal and urban areas	1/5000	All the municipalities	Relevant municipality
Implementary Development Plan	Municipal and urban areas	1/1000	All the municipalities other than metropolitan municipalities Metropolitan district municipalities	Relevant municipal council; metropolitan municipal council in metropolis

Table 1. Plan types in planning hierarchy in Turkey (Neşe et al, 2018).

The legal basis of planning in Turkey is the Development Plan Law No.3194 and covers the hierarchy of regional plan, environmental plan, master plan, and implementation of the development plan. The publication of the Spatial Plan Development Regulation was done in 2014. The Plan types, planning scale, plan development authority and plan approval authority are represented in Table 1 as above.

The establishment of the Ministry of Environment and Urbanization was an important step in terms of development of planning. The new established regulation, which is ‘‘Preparation of spatial plans’’ It was applied practically in 2014 as we mentioned above. The changes in the regulations brought very important renewals in the planning system. The existing hierarchy was altered as we can see it in Figure 1,

thanks to the creation of new planning types such as “national spatial strategy plan” and the “regional spatial strategy plan”. The frame of the plans were adjusted and the institutional part were also identified.¹⁵(Güneri, 2013).

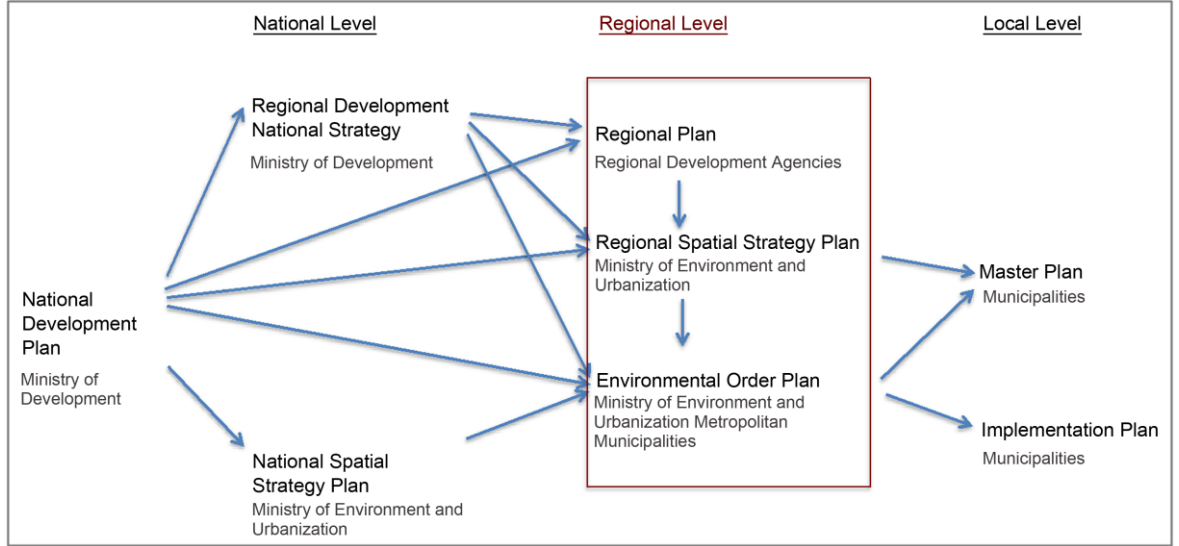


Figure 1. Planning hierarchy in Turkey Planning System¹⁶(Gursoy and Edelman, 2017)

According to Table 2, it would be fitting to say the developments and all the studies in regional planings show us it is taken more seriously and more professionally by the authorities, at least if we compare it with the past and consider all the changes¹⁷ (Kilic, 2009).

¹⁵Güneri, S., 2013: Çevre ve Şehircilik Bakanlığının Kurulması (644 Sayılı KHK) ile Planlama Yetkilerinin Merkezileşmesi ve Kent Mekanına Etkileri-Çorlu Örneği. İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü.

¹⁶Gursoy, N., Edelman, J. D., 2017: Regional Planing in İstanbul: Recent Issues and Challenges. Department of Urban and Regional Planing, Current Urban Studies , 5, 146-163..

¹⁷ Kilic, S. E.,2009: Proposal for Regional Administrative Stucture and Planing in Turkey. European Planing Studies, 17(9):1283-1301.

Date	Issues
2002	Defining statistical regions according to EU's NUTS classifications
2006	Low on the 'Establishment and Duties Regional Development Agencies' (no: 5449)
2011	Establishment of Ministry of Development, Introducing 'Regional Development National Strategy' as a new regional planning tool at the national level (Decree lav no.641)
2011	Establishment of Ministry and Urbanization (Decree-law no.644)
2014	Regulation on the Preparation of spatial Plans'
2014	Introducing 'Regional Spatial Strategy Plans' as a new regional planning tool at the regional level (Regulation on the 'Preparation of Spatial Plans')

Table 2. The latest effort at improving planning in Turkey (Gursoy and Edelman, 2017).

The planning system has two different scale levels, which are the national scale and local scale. Plans are prepared as Spatial Strategy Plans, Environmental Plan and reconstruction Plans in terms of their scope and objectives. The hierarchy of spatial plans was clarified and relations with other special plans were defined in this regulation.

According to the planning hierarchy, the plan types are as below;

- Country plans
- Regional plans
- Spatial strategy plans environmental order plan
- Master development plans
- Implementation plans

According to the legislation, it is imperative to make a city plan in every city with a population of 10,000 and its authority belongs to the municipalities. The plans go into effect with approval by municipal councils. The below table summarizes planning process steps.

Planning Process	Responsible	Reference Document
A plan request is made with the presidency instruction.	Presidency	Article
The boundary of the area to be planned is determined.	City planners	Development Plans
The current map is provided for the designated planning area. (From the map branch directorate)	City planners	3194 zoning law
Collecting data from the necessary institutional information.	City planners	Regulation on Spatial Plans
The collected institutional information is combined to form a synthesis work that will form the basis for the plan.	City planners	
As a result of the synthesis, design works are made and a plan draft is created.	City planners	
Meetings are held with other public institutions, non-governmental organizations to open the discussion to the plan, the participation of the people in the plan is ensured.	City planners	Regulation on Spatial Plans
The final plan is formed as a result of the meetings, the discussions, and the reopenings.	City planners	
It is requested to write a letter to the presidency and take the final plan to the city council agenda.	City planners	Regulation on Spatial Plans
The Writing Affairs Department maintains the parliamentary process and ensures that it is taken out of the way.	General Directorate of Articles Municipality Council	
The plan is transferred to the Development and Public Works Commission by the council.		
The plan, which is transferred to the development committee of the city council consisting of 5 council members, is presented to the development commission, the commission decision is made into the report and signed by the members of the commission.	City planners	5216 municipal law
After the commission decision is made, the matter is again taken into the agenda of the parliament and presented to the vote.	City planners	
The plan presented to the parliament is rejected or accepted. In case of rejection, work will be started to create a new plan alternative and a draft plan will be created or the plan will be removed. In case of acceptance, the suspension process starts. Some plans need to be approved by the ministry, in which case the assembly will be sent to the ministry for approval. The hanging process starts after the approval of the Ministry.	City planners	Regulation on Spatial Plans
After the plan is approved, transactions are started to be announced to the newspaper and announcements are made to the newspaper. The newspapers are followed and the plan is removed from the billboard for 30 days in the office presidency.	City planners	
The evaluation process of the objections made to the plan within the 30-day suspension process is like the plan approval process. First of all, the commission decision is taken and then the council is discussed.	City planners	Regulation on Spatial Plans
Appeals in parliament are rejected or accepted. If accepted, a new plan will be prepared according to the new changes and a parliament will be presented, a suspension will be made and a result plan will be created.	Council	
If the objections are rejected, no changes are made to the plan. After the plan participants have signed the relevant persons, they are distributed to the relevant institutions and persons for information. Archived.	City planners	

Table 3. Planning process step (Gursoy and Edelman, 2017).

Regarding the use of coasts, in the Republican Period many Regulations were made. Today our coasts are regulated according to the Regulation (KKUDY; 1990, 1992, 1994, 1996, 2004, 2011, 2013, 2014) on the Implementation of the Coastal Law No. 3621 (KK; 1990, 1992) which from time to time has some changes.

4.3. Cases of coastal design

As below seawall extension project (Saleh et al, 2016)¹⁸ proposed project for coastal resort is the city of Galveston in Texas, USA. The aim of the project is to prevent Galveston from floods by improving existing seawall. The summary of the project is how the value of the landscape could be kept high by a continuous connection with the surroundings, environmental protection and creation of a sustainable coastal community. In below images there is a demonstration of the recreational improvements in the beachside with a proposal extension of the seawall.



Figure 2. Section 1 (Saleh et al, 2016).

¹⁸ Saleh, A., Blazek, T., Nuoman, & Mo, X. 2016: Galveston Island Seawall Improvement Proposal. 2016.

Extension Seawall Proposal



Figure 3. Section2 (Saleh et al, 2016).

Extension Seawall Proposal



Figure 4. Section3 (Saleh et al, 2016).



Figure 5. Image: a proposed master plan for Galveston (Saleh et al, 2016).

Dead sea development zone detailed master plan Design considers the main approach is to improve existing conditions for the local community, increase tourism attraction by providing protection and sustainability of the natural environment(Pieprz, 2011)¹⁹.Another aim of the project is to connect the dead sea highway and the dead sea itself. This is an important point: to improve the network between the main points and create a linkage especially in terms of touristic development.



Figure 6. Linkage of Dead Sea Highway and The Dead Sea (Pieprz, 2011)

¹⁹ Pieprz, D., 2011: Jordan Development Zones Company. Dead Sea Development Zone Detailed Master Plan.

5. Practical Part

5.1. Study Area

Samandag is a Delta surrounded in the east by Musa Mountain, which is the most southern part of Samandag and Ziyaret Mountains, Keldag in the south, Antochia in the northeast and Mediterranean in the west.



Figure 7. Study area in the border of Samandag

Samandağ-Study Area



Figure 8 Location of Study Area in Turkey

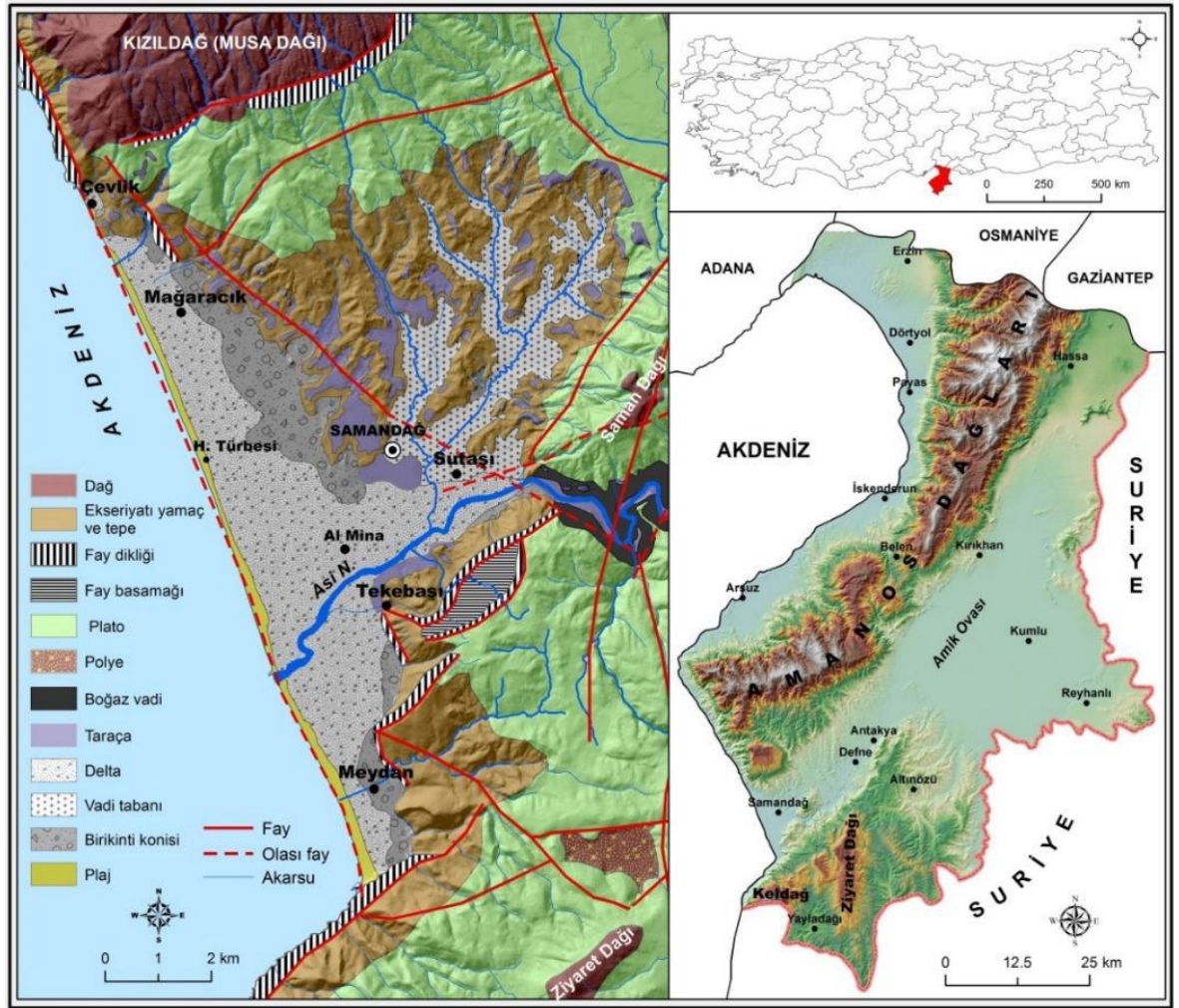


Figure9 .Location And Geomorphology Map of Asi Delta (Korkmaz, Geçen, & Kuşçu, 2016)²⁰.

Asi river flows into the Mediterranean sea in Samandag and creates Samandag Delta. Syria and the Mediterranean are the main borders of the town. With a surface area of 446 km², the number of municipalities is 12 and the number of villages is 31. The beach on the Mediterranean coast, starting from Çevlik extending southwards, is quite long. The length of this beach is approximately 14 kilometers. It is one of the longest sandy beaches in the world (Samandag Municipality, 2019)²¹.

²⁰ Korkmaz, H., Geçen, R., & Kuşçu, V., 2016: Coastal Edge Line Of Orontes Delta (Samandag). Firat University Journal of Social Science, 21-35.

²¹Samandag Municipality, 2019. Online: <http://samandag.bel.tr/> accessed 23.02.2019.

5.1.1. Population, Climate and Urbanization

The population of the town is 121.558 in 2018. Density is 316,92 p/km², 48.44 % male and 51.56 % female (Endeksa, 2019)²².

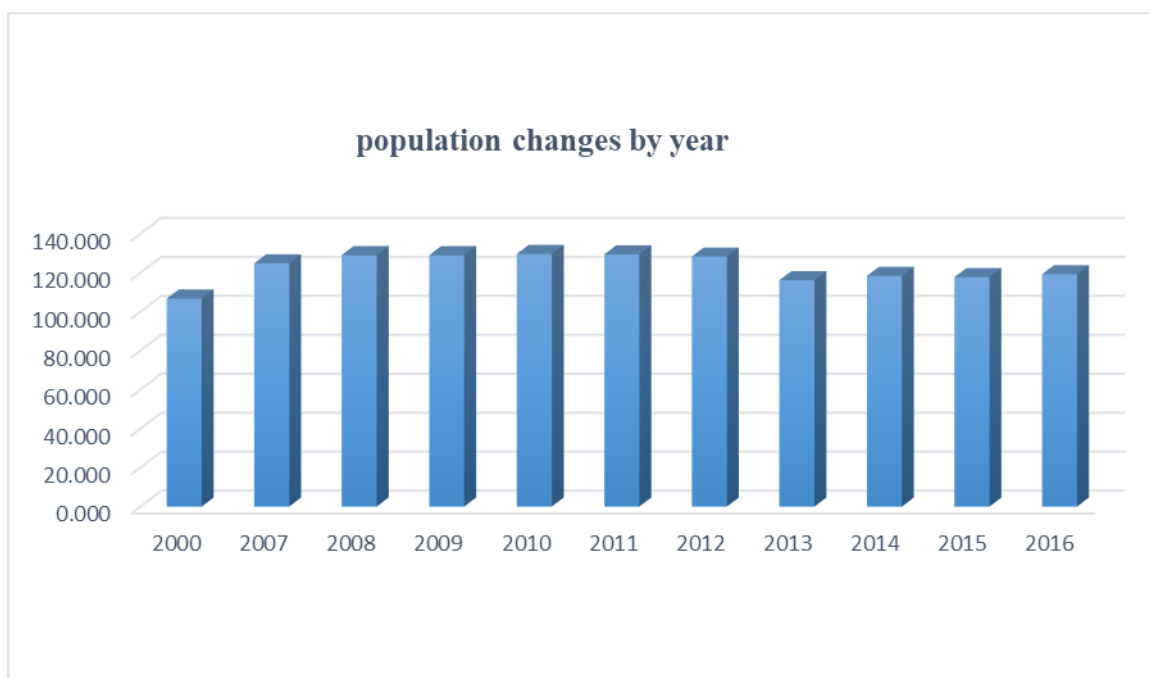


Figure 10. Population changes by year for the Samandag region (Endeksa, 2019).

Samandag has a moderate and warm climate. The winters are usually rainy and summers comparatively rainy. The annual average temperature is 18.5 °C and the precipitations are 949 mm. According to the below graph, the lowest rainfall is in July with 6mm average and the highest rainfall is 171 mm in December. August is the month with the highest average temperature approximately 27.5 °C and the coldest month is January with 9.5 (Geiger, 2019)²³

²² Endeksa 2019, Prague Online: <https://www.endeksa.com/tr/accessed> 23.02.2019.

²³ Geiger, K. A., 2019, February 23. *climate data org*, Prague online : <https://en.climate-data.org/> accessed 2.02.2019.

Samandag's economic income is nowadays based on intensive fishing and agriculture. Also, a certain portion of the population receives income from family members who work abroad(mostly Saudi Arabia).

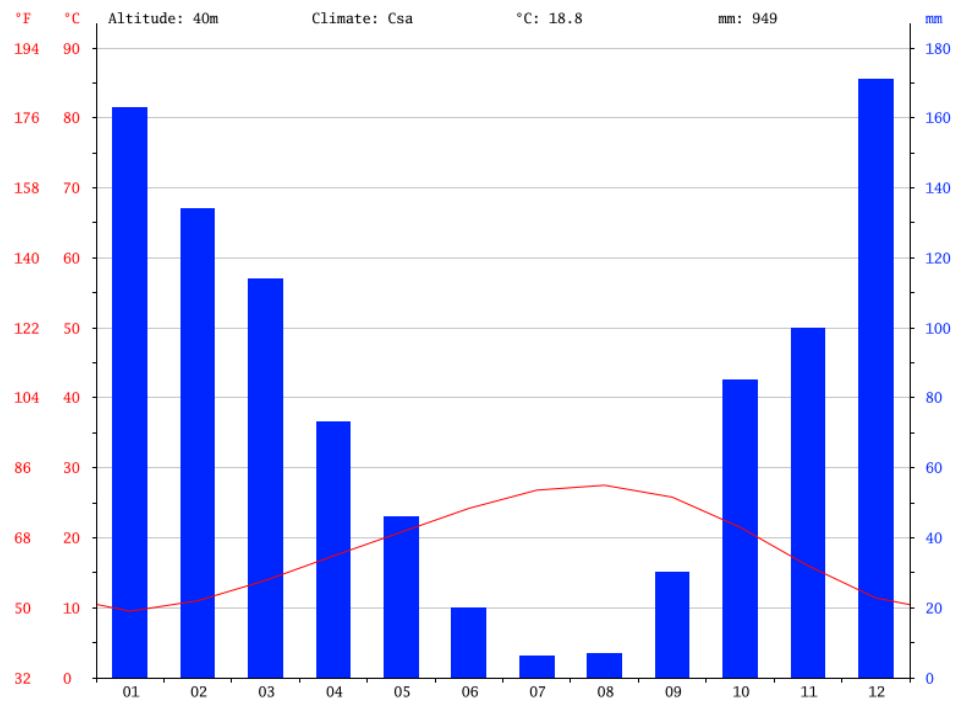


Figure 11. Annual precipitation (Geiger, 2019).

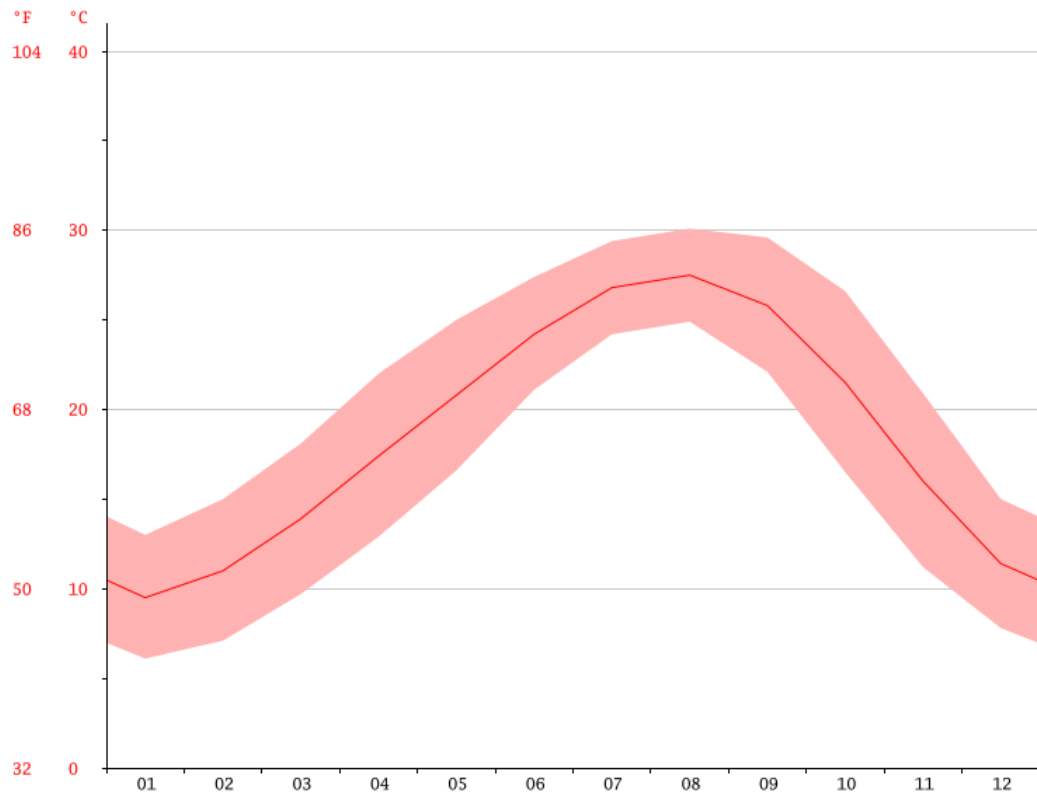


Figure 12. Annual temperature (Geiger, 2019).

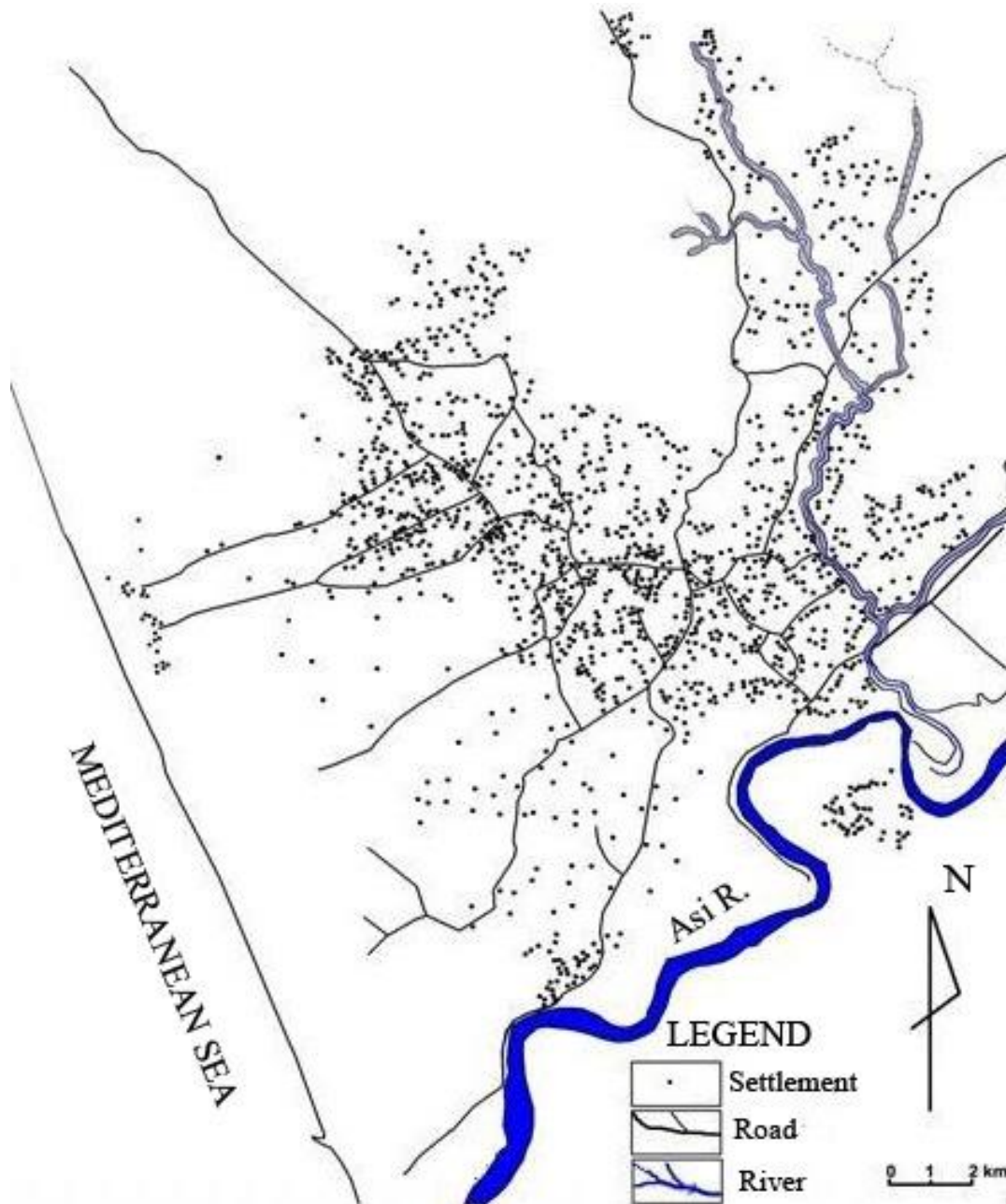


Figure 13 Settlement pattern of Samandag 1960(Karatas, et al., 2012)²⁴.

The settlement from 1960-1987 has not changed remarkably. By this time the municipality was an open district (Deniz District which) to occupational construction by parcellation in 1960. A small number of buildings were constructed also in the beach area of the municipality (Karatas, et al., 2012).

²⁴ Karatas, A., Bayram, Ç., Kuscü, V., Ege, İ., Bom, A., Özsahin, E., & Korkmaz, H., 2012: Temporal changes of land use in Asi river delta (Hatay, Southern Turkey). *Journal of Environmental Biology* 33(2 Suppl):463-73 · April.

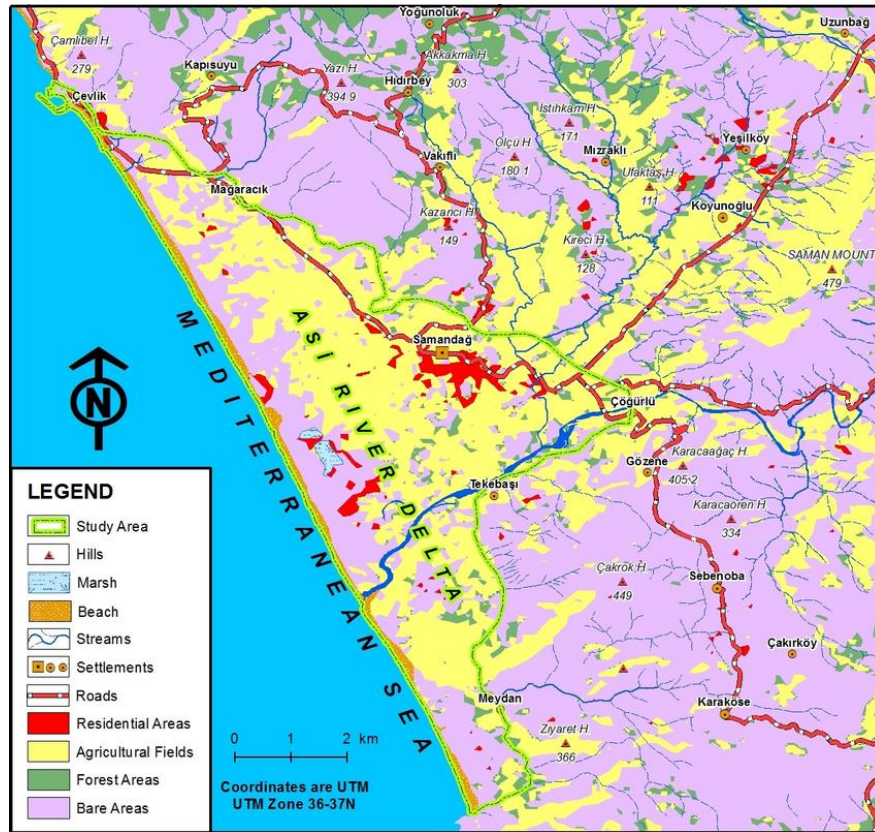


Figure 14. Settlement in Asi(Orontes) River Delta in 1987(Karatas, et al., 2012).

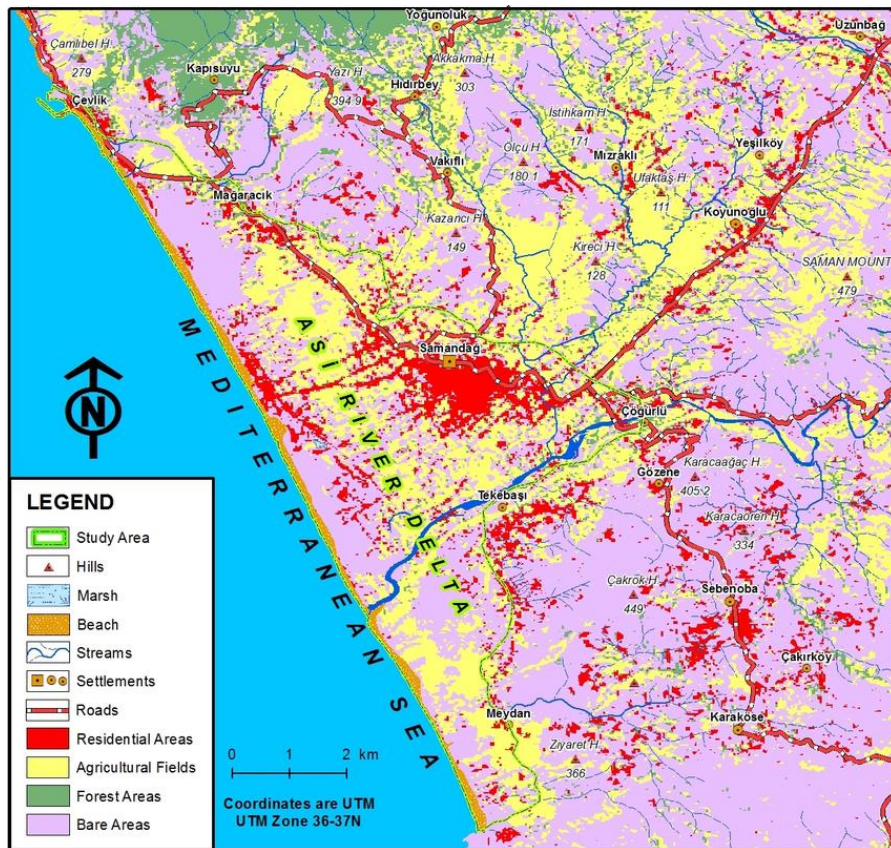


Figure 15. Settlement in Asi(Orontes) River Delta in 2000 (Karatat, et al., 2012).

During this period the settlement continued to expand, as we can see that the area which is between the city center and the coast was filled. Some facilities were constructed around that location, due to the local touristic attraction.

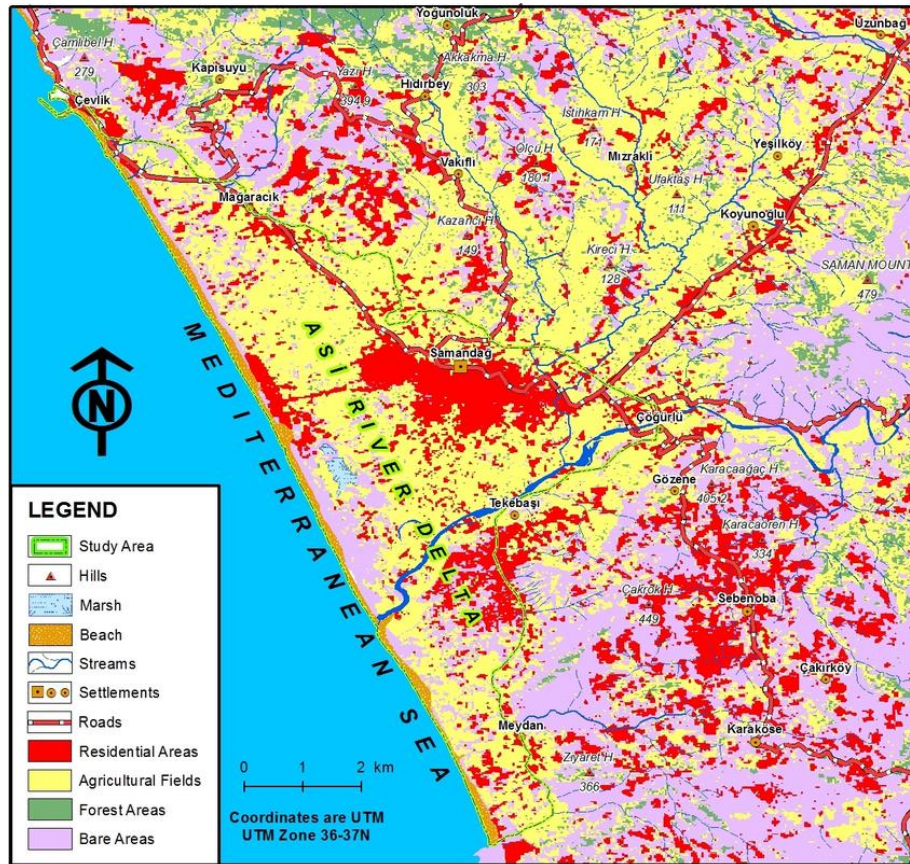


Figure 16. Settlement in Asi(Orontes) River Delta in 2007(Karatas, et al., 2012).

And finally, with the 3rd image we are able to analyze the highest rise of settlement changes. The percentage of agricultural land shrank. Comparing the land use map from 2007, the settlements area expands to 1929.9 ha, and part of it is with a high concentration of settlements.

5.1.2. SWOT Analysis of The Study Area

Swot analysis means analysing the strengths, weaknesses, opportunities, and threats in the area. It is a useful tool in terms of regional planning, creating future plans and improving the cities. Strength and opportunities could be defined as internal factors, weaknesses and threats could be defined as external factors(Khalifipour, Soffianaian, & Fakheran, 2012)²⁵.

In this study case, we use Swot analysis to evaluate internal and external factors in terms of the development of the relation between the city and the surrounding coast. Swot analysis of the area will be beneficial in terms of creating a strategic plan in this study case. Interactions between all the existing conditions will provide the route of the implementation ideas to the area.

According to the existing conditions, Samandağ has enough potential to be a major touristic place in the world. The location, nature, culture, rich history with a diverse civilization are the evidence of this potential. All the conditions needed in order to develop in terms of socio-economic requirements.

Samandag is one of the oldest district centers in Turkey. It was established in 305 BC by Seleucus Nicator as a port city of Antakya and as a residential area on the seafront at the foot of Musa Mountain (DOGAKA, 2019)²⁶. A city of many civilizations since early ages, it has been occupied by Greeks, Romans, Seljuks, Fatimid Empire, Memalükes, French and Ottomans. The rich history of diverse civilizations created in time a land feature of abundance of culture. Different civilizations left behind different traditions and customs. All these differences in ethnicity, community, modes of living became the hallmark of the character of the city. The population is a mix of ethnicities: Jews, Christians, Sunnis, and a big majority of Alawites are societies who shaped the identity of the city.

²⁵ Khalifipour, H., Soffianaian, A., & Fakheran, S.,2012: Application of SWOT Analysis in Strategic Environmental Planing: A Case Study of Isfahan/Iran. International Conference on Applied Life Sciences (ICALS2012), 10-12.

²⁶ Dogaka 2019, Invest in Hatay: <http://www.hataydayatirim.com>, accessed 01.01.2019.

Samandag is the place of coastal tourism plus all ecological and historical cultural values. It is a major place where local communities have summer activities even though there is a lack of investment and attention. Samandag beach is on the Mediterranean coast near the Syrian border, and is around 14 km long, as we mentioned above, which makes it one of the longest sandy beaches in the world. Çevlik is the end point on the north side and Sabca Burnu on the south side. Samandag beach can be divided into three main parst. Çevlik beach, approximately 4.5 km and mainly used for recreation; Seyh Hızır Beach 4km long, and is between Seyh Hızır Tomb and Asi River; the third part is Meydan Beach 4.5 km long, and is south of the Asi(Orontes river) (Yalçın-Özdilek, 2007)²⁷. The presence of the coast is the biggest advantage in terms of development for the area, through tourism attraction. Sea tourism should be the main economic income of the local community besides fishery and agriculture, with the town holding all those values together . Samandag port is a potential cruise destination, as it is on the list of Ministry of Culture plan of ,“Tourism Turkey Tourism Strategy 2023“ (DENİZ, 2017)²⁸

²⁷ Yalçın-Özdilek, S., 2007: Status of Sea Turtles(*Chelonia mydas* and *Caretta caretta*) on Samandağ Beach, Turkey: a few year monitoring study. *Annales Zoologici Fennici* 44:333-347.

²⁸ Deniz., M., 2017: Analysing cruise industry in terms of turkish tourism sector. *Balkan and Near Eastern Journal of Social Sciences*.2017 (03) Special Issues.

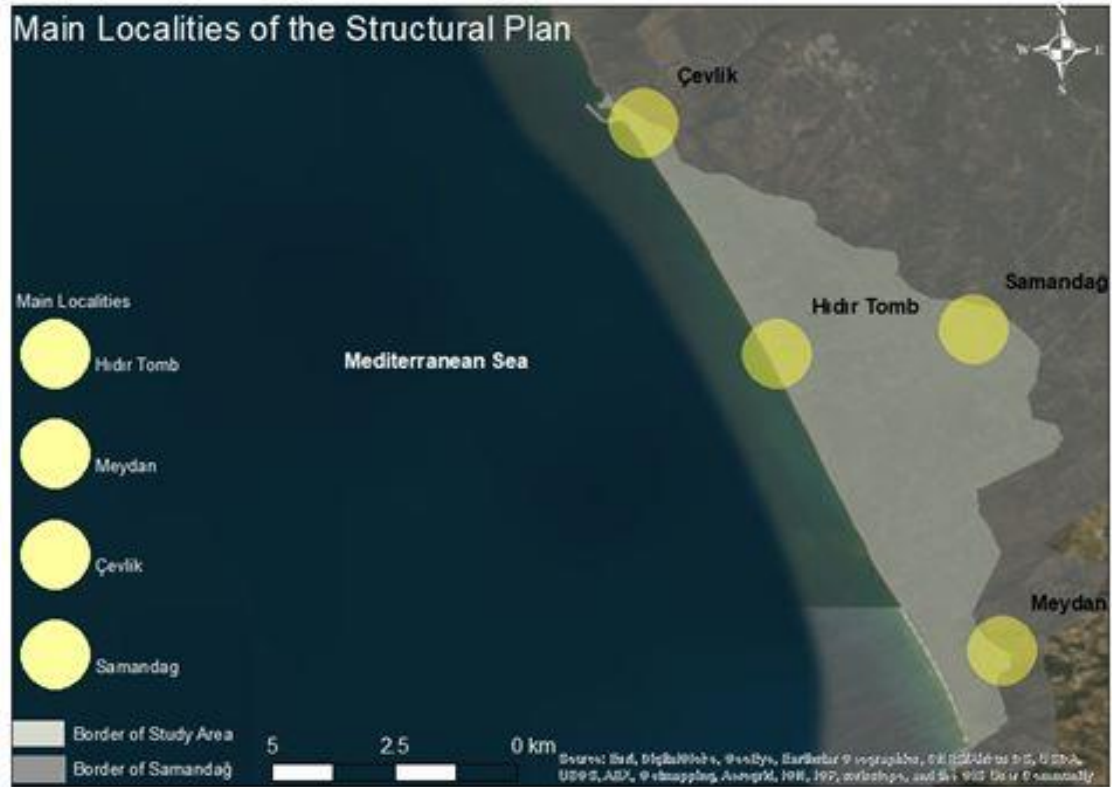


Figure 17. Location of Main Study Points and Samandag

Samandag Delta has a rich biodiversity thanks to the geographical conditions. The climate and the existence of the Asi Orontes river, which creates the Samandag Delta, are an amazing creator of rich fauna and flora. There is an amazing aquatic ecosystem in the place where Asi Rivers connects with the Mediterranean sea. Aquatic ecosystems are the most productive ecosystems and they have economic value. Their existence creates resources for biota. Milleyha is a unique and very rich wetland. Meter high from sea level and it covers 100 hectares approximately. Wetlands in Turkey until 1960s were dried because people were not aware of the value of the land. After mid-1960s their importance started to be realized and drainage began to be prohibited (Altay & Ozturk, 2012)²⁹.

Keldag, to the south of Samandag, is weak in terms of vegetation but is quite rich in diversity. There are endemic plant species which are not mentioned and named in

²⁹ Altay, V., & Ozturk, M. 2012: Land degradation and halopytic plant diversity of Milleyha. Mustafa Kemal University, Science & Arts Faculty, Biology Dept., Hatay-Turkey, Ege University, Science Faculty, Botany Dept., Izmir-Turkey , 37-50.

another part of the world in this mountain. The Dunes of Samandag are the most important Dunes all around the Mediterranean coastal regions. Samandag dunes are under the regulations of the “Coastal Law” number 3830 and the “Regulation on the Implementation of the Coastal Law“. The dunes are very significant ecologically. In addition, there is the habitat of *Caretta caretta*, *Chelonia mydas*, *Trionyx triunguis*, and it has very high floristic biodiversity (Gürkan, 2016)³⁰. Sea turtles are listed in strictly protected fauna species under the Treaties of Bern and Barcelona. Samandag,, moreover is the biotope of *Monachus monachus*, an endemic seal. Samandağ sand dunes are on the birds migration path.

Samandağ Forests cover 44.194.5 hectares: 24.726 hectares of forest area and 19.468.5 hectares of non-forested forest land. (Akiprik, 2011).

Unfortunately, in Turkey, coasts have been exposed to incorrect and non-recyclable applications due to reasons such as legal gaps, the law not fully implemented or coastal area ecosystems not fully covered by the regulations. A similar situation is seen today on the coast of the Asi Delta-Samandag. The coast is a geomorphological unit and has a dynamic structure where the air, land, and sea are in interaction. The coastal line which is valid today in Samandag Delta is incompatible with the existing coastal dynamics and geomorphologists. The regulations were changed very often and each change was not related to the others. That is what could be counted as the main reason of the inaccuracies in the coastal development, such as not counting the wind and other ecological conditions and their effects (Korkmaz et al, 2016). The carried sand by the wind damages the structures which are on the coastline. Another point is the loss of the dune plants increases the effect of the wind on the structures.

³⁰ Gürkan, A. G., 2016 : Sustainable Land Use Planning of Lower Asi River Basin. *Faculty of Architecture, Department of Landscape Architecture, Mustafa Kemal University, Hatay 61-69.*

Strengths	Weaknesses
History and culture	No appliance of coastal regulation law
The presence of the sea	Lack of awareness and investment
The cruise port	Not applied zoning plan
Ecological conditions	Transportation and social services
Various touristic attractions	

Table 4. Internal factors

Opportunities	Threats
Improvement of the transportation network	Urban sprawl
Expansion of recreational areas	Landuse degradation and fragmentation
Marine and other sport activities	Flood
Variety of ethnicity	Protection of endangered species

Table 5. External factors

5.1.3. History and Culture

Samandag is one of the most ancient towns which belongs to the city of Hatay in the southern part of Turkey. The findings of excavations in Çevlik belong to the Middle Palaeolithic (100.000-40.000 BC). The same tools and human remains (Homo Sapiens Çevlikiyensis Politik) were found to belong to the upper Palaeolithic as well. Also, located in the village of Meydan, remains from the beginning of the Upper Palaeolithic Period were excavated.

The Greeks established Al-Mina Port in the Delta Of Asi River in 750 BC. At that time the ships were able to reach Antakya thanks to Asi River.

Samandağ (Seleucus) was established after Great Alexander under the name of Seleucia Pieria (today's Cevlik) by Seleucus Nicator in 305 it had become a port city by that time and also the capital of the country.

During the Roman period Titus tunnel was created to protect the port city from flood water. The construction of the tunnel took 100 years. In 1516 the area joined the Ottoman Empire (Karatat et al, 2012) and after WWI Samandag remained under the French control. In 1938 it became part of Hatay State under the name of

“Suveydiye“. In July 1939 Hatay joined the Turkish Republic and in 1948 the city is named Samandag (Akkiprik, 2011).

Civilizations left many traces for future eras. One of the most unique and oldest archeological sites are in Samandağ. They are worthy enough on their own to attract many tourists worldwide.

Vespasianus-Titus tunnel is one of the massive human artwork. It is in the district of Samandağ and it lies 35 km in southwest of Antakya. Antakya was important in antiquity in this region. In 301 BC, commander Alexandır Seleucus Nikator announced his kingdom and he named the city Seleucia Piera. It was surrounded with a 12.5 km long and 4 m high city wall. Like other Roman city, Seleucia Piera was divided into two different parts: the down city and the upper city. It was one of the most important cities in the Mediterranean basin in terms of commercial life.



Photo 1. Seleucia Piera downtown (GÖĞEBAKAN & SABAN, 2018).

The city was around 40-50m above sea level. The upper city was designed in sloping terrain with workshops, shrines and formal buildings. A little above the terrain was the real settlement area called nowadays ‘Kapisuyu’. The city wall was a bit further that Kapisuyu. Downtown part was created around the port. It was a complex of market, bazaar, shops and craftsmen places. There were also many wheat warehouses

in the vicinity, called gronarium, that can still be seen today. The existence of warehouses shows how the port had a strategic importance by that time already (Gogebakan & Saban, 2018)³¹.



Photo 2. Samandağ-Çevlik (Seleuceia Piera today)

It is one of the best Roman water structures built to protect the city from flood waters, but also to meet the public needs for water and to implement a dam project. The total length of the tunnel is 870 m and is divided into three parts for different functions of the water. The height of the tunnel differs, depending on the parts, for example the second part of the tunnel has 60.11 m height and 6.60 m width. Totally closed is the first part, partly closed the second one, and totally closed the third part, the tunnel today is on the world heritage sites list. We are not sure about this information, but apparently the construction of the tunnel took more than 100 years.

³¹ Gögebakan, Y., & Saban, D., 2018: World Heritage List And Vespasianus- Titus Tunnel–An Evaluation On The. The Journal of International Social Research . Volume: 11.



Photo 3. Vespasianus Titus Tunnel



Photo 4. Vespasianus Titus Tunnel

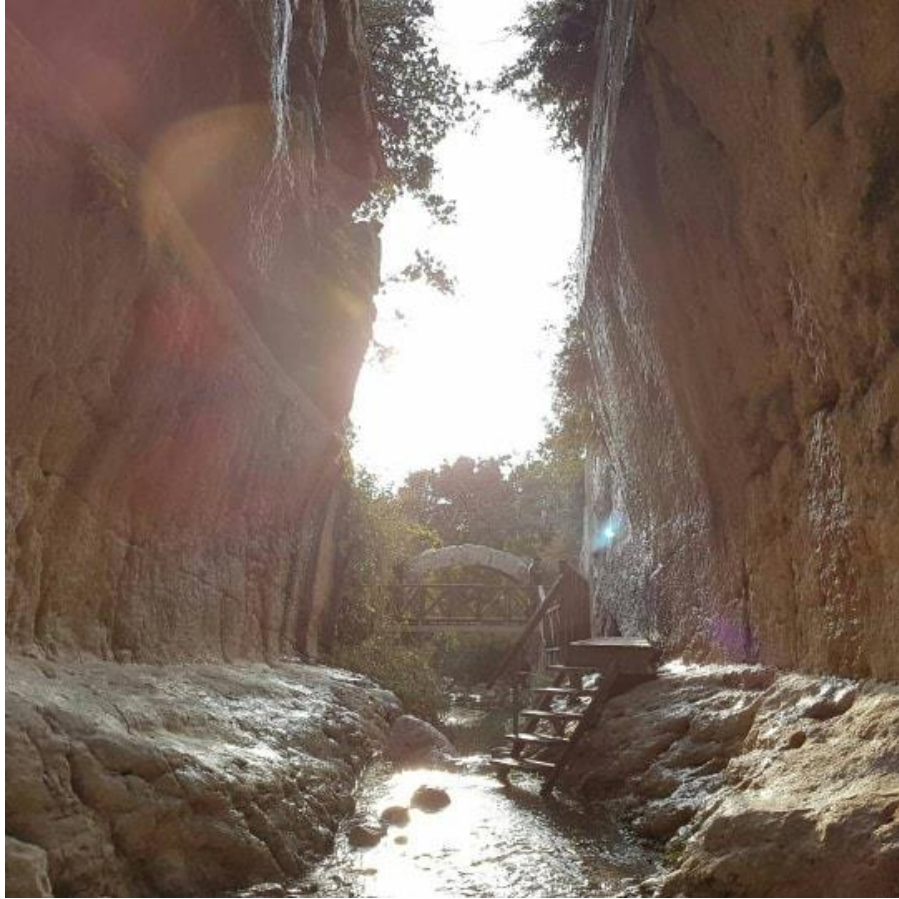


Photo 5. Vespasianus Titus Tunnel



Photo 6. Uptown of Seleuceia Piera

Hızır is a Muslim saint who is commonly venerated in the Middle East and Central Eurasia (Kreinath, 2014)³². Also, Christians believe that il-Xiḍir (Hızır) and Saint George are the same people. His mother was Palestinian and his father a captain of the king's guards, the king of the Romans. He was born in 280 AD and was secretly raised as a Christian. He was strong, brave and successful in war. He became a squadron leader and gained people's sympathy.

Once the Romans announced christians should be all killed when discovered, he opposed the idea and confessed that he was a Christian too. They put him in a prison and hit his head with a sword After this, thousands of Romans became Christians for the sake of Ğirğus/Gearhge. He was an important symbol of that time in spreading Christianity (Klimiuk, 2016)³³.



Photo 7. Hızır pilgrimage site in Samandağ.

³² Kreinath, J., 2014: Virtual encounters with Hızır and other Muslim saints Dreaming and healing at local pilgrimage sites in Hatay, Turkey. *antropology of the contemporary middle east and central euroasia*: 2(1), 25-66, 2014.

³³ Klimiuk, M., 2016: The Folktale of Saint George and il-Xiḍir: A Text in Christian Arabic of is-Swaydī (Samandağ). *Rocznik orientalistyczny* T. LXIX, Z. 2, 121–133.



Photo 8. Cradle(Beşikli) Cave

Beşikli cradle cave is located very close to Titus Tunnel. It is a cemetery from Roman times. On the rocky hillsides there are twelve graves. Reportedly these graves were made for the kings, however, some of them belong to Roman governors and the prominent residents of the city of Seleucia Pieria. In the same location, there is also a big necropolis.

5.1.4. Transportation Land Use and Social Services

The study area has a connection with the main existing places that have touristic and other Social Services potential. The study area will be presented with three main points: Çevlik (Seleucia Pieria), Hızır Tomb and Meydan. The network will be analyzed according to these three main areas, and how the existing connections are to the study areas from: the main City Centre-Antakya, Airport, Samandağ, Arsuz, Çevlik-Seleucia Pieria, Hidir Bey, Vakıflı, Meydan and Batıayaz.

The mentioned villages are the places with potential for tourism and social services.

Vakıflı-Hıdırbey-Batıayaz is potentially important in terms of touristic attraction. The transportation between the mentioned areas to the study areas is done by transfer

journeys. There is no direct transportation between Çevlik-Hıdır Tomb–Meydan and Hıdır Bey-Vakıflı-Batıayaz.

Samandag, which is the center of the town has a direct connection to the main city center of Hatay-Antochia and Hatay Airpot. The connection to the airport exists by beltline road. There is also a direct connection to one of the touristic points which attracts tourists from other cities, such as Arsuz, which belongs to another town on the Mediterranean coast - İstenderun.

Hıdırbey is a village of Moses. The most symbolic object of the town is Moses's tree: it is believed that it's the tree from which Musa – Moses – got his staff. The diameter of the tree is 35 m and as per folktale it is around 2000-3000 years old (Sunar et al, 2018)³⁴.

Vakıflı is the only Armenian village in Turkey Samandağ District and first application of organic agriculture has been done in Vakıflı Village. The village has historical stone houses (Ozbaykal et al, 2018)³⁵. The Armenian church in Vakıflı is a destination which is visited quite often by Christians. Vakıflı, beside being the first Armenian village in Turkey, is actually a place of gathering for Armenians living in Lebanon, İstanbul and Syria due to 'The feast of Blessed Virgin Mary' which is celebrated each year to keep alive Armenian ethnicity (S. Dinu, Hacıoğlu, 2015)³⁶. Batıayaz is a village with an Armenian church named Asdvazazin as attraction. The village and the landscape of the site are also popular for their natural beauty, and these natural places are very popular among the locals. Direct transportation to the coastal area (Main Study Areas) is interrupted and limited. There are direct connections from Samandag town centre to each study area and surrounding potential localities but there are no direct connections in the study areas itself and from it to other localities with touristic potential.

³⁴ Sunar, H., Gökçe, F., & Altınöz, S., Ö., 2018: Analyzing the tourism of hatay through online customer experiences. *Journal of Recreation and Tourism Research*, 63-71.

³⁵ Özbaykal, C., Işıkgör, H., & Yavuz, P. 2018: Hatay Povice Tourism strategy and action plan 2018-2023. T.R. eastern mediterranean development.

³⁶ Dinu, S., P., Hacıoğlu, N., Avcıkurt, C., Efe, R., & Soykan, A., 2015: *Tourism, Environment and St. Kliment ohridski university press. Sofia, ISBN 978-954-074218.*

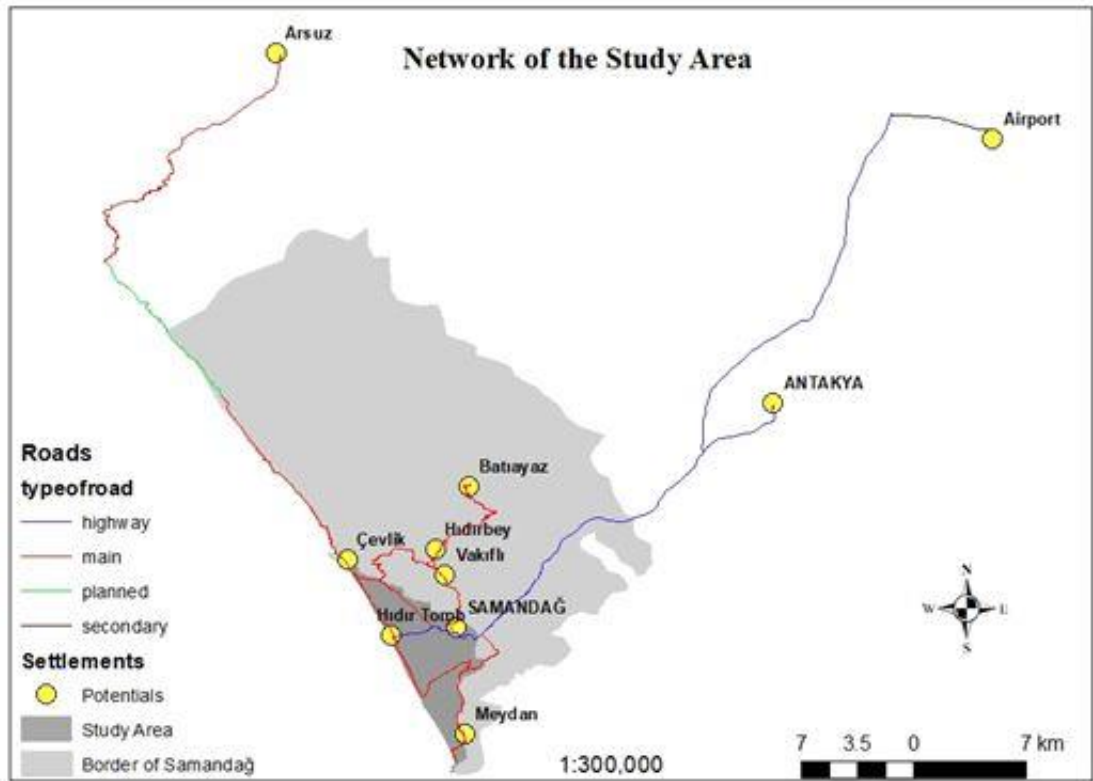


Figure 18. Network of the Study Area

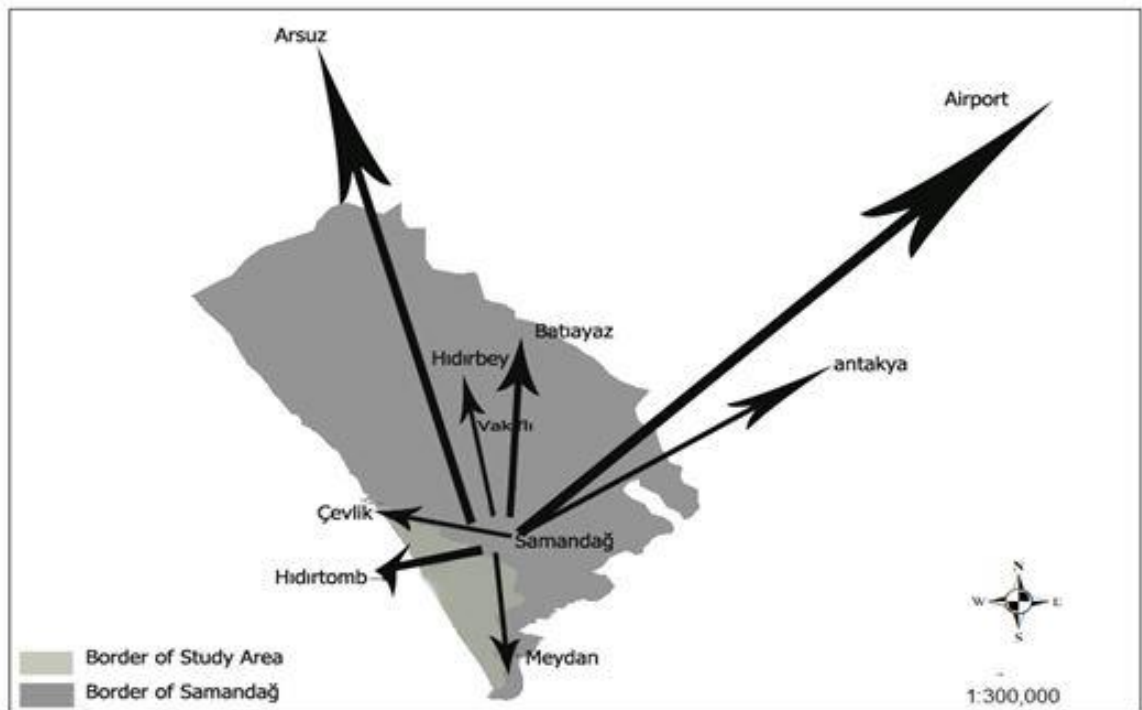


Figure 19. Existing Direct Connection from Samandag to Surrounding

Insufficient social places, insufficient recreational areas, land misuse and wrong planning are the major problems of the site and at the same time the most important points for an effective analysis and planning of the zone.

We defined the land use of the site as a result of the division of the study area into three main parts, which are Çevlik Beach, Hıdırtomb Beach and Meydan Beach. Each site has weaknesses and potential that are contained in the implementation planning.

Çevlik is the beach on the northern side of the study area and neighbors Arsuz (touristical place belonging to Iskenderun town). There are summer houses which are usually owned by the locals and by people from Antakya Iskenderun and Samandag. The historical ruins from ancient times like Titus Tunnel and Cradle Cave and paragliding are the factors which already give attraction of the sites. Would be also necessary to mention the fishery and the importance of the Port. At the same time these are the areas that need to be improved.

The presence of the sea means potential for sea sports. Çevlik is an available spot where paragliding is already done as sport by local people. The harbour is the major strength of the site by enhancing the connectivity and the touristic attraction. But unfortunately the lack of investment for all the above factors is the biggest problem. Insufficient housing and touristic accommodation, recreational areas, social places and lack of services, patchy connection with the closest touristic villages are the obstacles of the site.

Hıdırtomb is located in the middle part of Samandag Beach area. It is one of the most popular social activities spots for local people. Leisure activities are in places like cafes, bars, restaurants and hotels, and are the characteristic structures of the area.

The land includes also an enormous wetland called Milleyha, which is a birds paradise, and has a very rich biodiversity of flora and fauna. It is a breeding spot for sea turtles.

The other identity place of the area is Hıdır Tomb, which represent customs and traditions. It is an important place for Muslims and Christian Orthodox.

The existence of all the above conditions creates such a different environment and requires an extremely high balance of cooperation. The area is important and has potential in terms of beach tourism, tourism of customs and traditions, and environmental tourism, which we might call ecotourism.

Insufficient infrastructure and planning, lack of investment in tourism and lack of protection of the wetland and surrounding are the negative features of the sites.

The third part of the study area is Meydan Beach. As we mentioned for the previous two beach, Meydan also lacks facilities, recreational places, and protection of the environment. There are summer houses which can accommodate local tourists in summer time, but with limited services and potential for the area. The site has potential for sport activities, like diving and kite surfing (boardsurfing).

We do face the same problems for the three main areas: lack of investment, insufficient services and facilities, lack of environmental protection, interrupted connectivity between the main places and other localities.

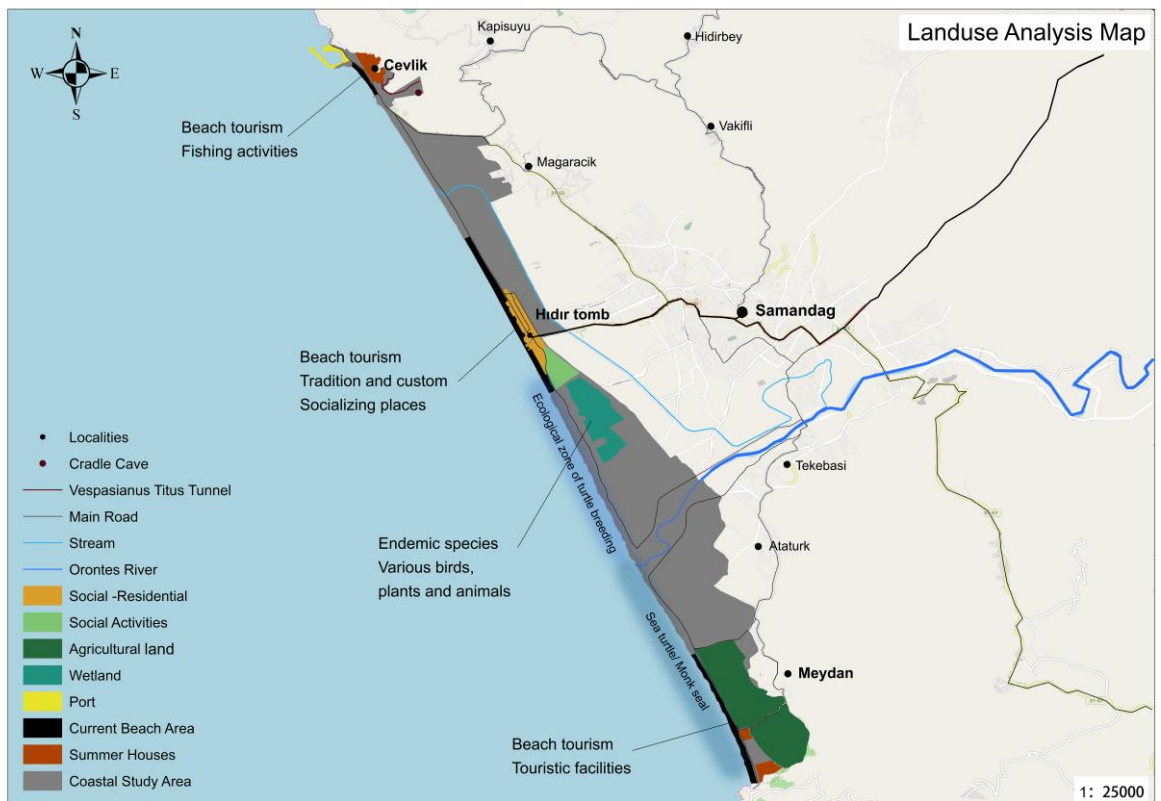


Figure 20. Landuse analysis map of Samandag Coastal Zone

5.2. Planning Solutions

As we mentioned in the aim of the study the implementation idea is to improve the structural plan by increasing touristic attractions of the site. This will take into consideration the environment (land use, protected areas-flora –fauna), the existing conditions (custom traditions, touristic places, sea sport activities), the requirements of the social lifestyles (recreational areas, leisure activities places), and the socio economical conditions. And also the main aim is to improve connectivity and merge it with the requirements and the potential of the site.

A green cycling connection network is one of the main concepts of the study case. To achieve the main goals of each implementation factors we need to improve the connectivity and increase the mobility between places. The reason why we choose the green cycling connection network is to protect the natural beauty of the site and to minimize additional damage to it, damage made by humans or natural events. However, it is hard to prevent natural damages to the sites (wind erosion, land degradation etc...), but as humans we have the strength to minimize the effects of those natural factors by reviewing the structural plans of the area.

Green cycling road is the main idea which needs to be improve firstly, thus increasing the accessibility of the site to locals and tourists. However, the cycling path will have to be supported by better planning of the other factors, to make it worth for the people to use it. The cycling road has been planned between Arsuz (which is already a touristic site belong to İskderun and in the north part of Cevlik) Çevlik-Hıdırbey-batıayaz-Hıdırtomb-Meydan. Cyclists will have options to start the tour from several different points, which will lead the person to completely different beauty places and destinations.

Along the beach from Çevlik to Meydan, the land use is reclassified. Çevlik beach is the main beach available, and clean for swimming. Çevlik summer houses number has been increased, leisure activities sites and new beach aresa has been created for future touristic activities. New recreational places are along the beach, as well as places for social activities like concerts, open air cinema and theatre, etc...the natural beach sites have been kept for sea sports. Çevlik is a potential place for paragliding and board surfing.

The other strength of Çevlik site is the presence of the port. The port represents a big advantage in the improvement of the connectivity and the touristic attractiveness. The port would be one of the important cruise ports in Turkey. The connection would be created from Cyprus to Mersin, and from Mersin to Iskenderiun, which are around Cevlik. It will also be used for public transportation and would make daily transportation easier and faster between the localities.

The current historical sites in Çevlik area which are right from ancient history are the powerful attraction points of the place.

Hıdırtomb beach, which is the second beach point of the area, has beach sea tourism. But its attraction is given also by the customs and the traditions of the site. Hıdır, as we explained, is an important person for Muslims and orthodox Christians according to folktales. After Çevlik is one of the most popular gathering points for local people, and its accessible for local people with limited transportation: it is easier to get to Hıdırtomb area rather than Çevlik or another site (Meydan) of Samandağ beach. Sprawl planning on-site is the main problem. The constructions are on the border of the coastline which means the natural conditions of the beach, such as sea level, wind, flood etc have not been considered when the constructions were allowed. Therefore, according to the new plan those constructions have been removed and the beach was left to its own natural conditions. In this new situation, swimming is the main activity encouraged on the site, but other leisure activities and social areas exist. Hotels are in the area for national and international tourists, but they don't cover the future touristic potential. The leisure activity sites are very old and unorganized, and our solution states that they should be replaced by structures better atuned to the natural environment and the culture of the place.

Hıdırtomb area contains a wetland which is extremely important and needs to be protected. The current situation o the wetland is, unfortunately, not that bright. But according to our plan we did consider ait nd estimated the border of the wetland. This should be extended and include also the beach parallel to the wetland, and all this area should be under protection. The importance of the wetland in terms of ecosystem (flora-fauna) is high. It is a birds paradise site and one of the most important birds migration places. It's a breeding area of sea turtles and an area full of endemic species of plants and animals. Their presence requires high protection of the

wetland. That is why the proposal is to extend the existing border of the wetland in order to minimize its interaction with the human-made environment. Furthermore, a natural park has been created next to the wetland. An observation tower would be available for those who are interested in watching nature. This natural park will also give a chance to local people to interact within a natural common space.

Meydan is the third part of the study area of Samandag Beach. Like Cevlik beach, is a place with potential for sea sports and beach tourism, but again the common problem of all the areas is the existing accommodation for tourists or local people: the summer houses aren't covering the current requirements and neighter the future plan potential. For that reason, the summer houses area has been extended here as well. Diving and board surfing are some of the most important attractions, and would need to be advertised to bring attention to the area. Those sports are done by the local people, but rarely. It is als the breeding area for sea turtles and the Mediterranean monk seal, which is an endangered animal, struggling to live between Syrian and Meydan coastline. For that reason Meydan beach should have an observation period to analyse those endangered species of flora and fauna, and depending on the results the touristic potential of the beach could be defined and decided. But the most important point to keep in mind is that human interaction with the area will be limited, depending on how endangered the species kept under observation are, in order to ensure their protection.

Samandag is a place of organic agriculture where it is done more effectively and there is an even higher potential for it. So along the coast in the study area, the plan includes, protects and extends those agricultural lands for the practice of organic agriculture.

Another implementation point would be camping sites on the coast between Arsuz, Cevlik and Meydan Beach. The concept of the connectivity would be attracting tourists by providing the related services as well, like staying in nature overnight, observing nature, enjoying the beach and doing sports. The cyclist would have the chance to travel along all the Mediterreanean coast, from destination to destination enjoying different experiences on entrainment of nature. Whatever is planned would be in harmony with the existing natural protected areas, and this would make the sites more attractive and important.

STRUCTURAL PLANNING MAP OF SAMANDAĞ COASTAL ZONE

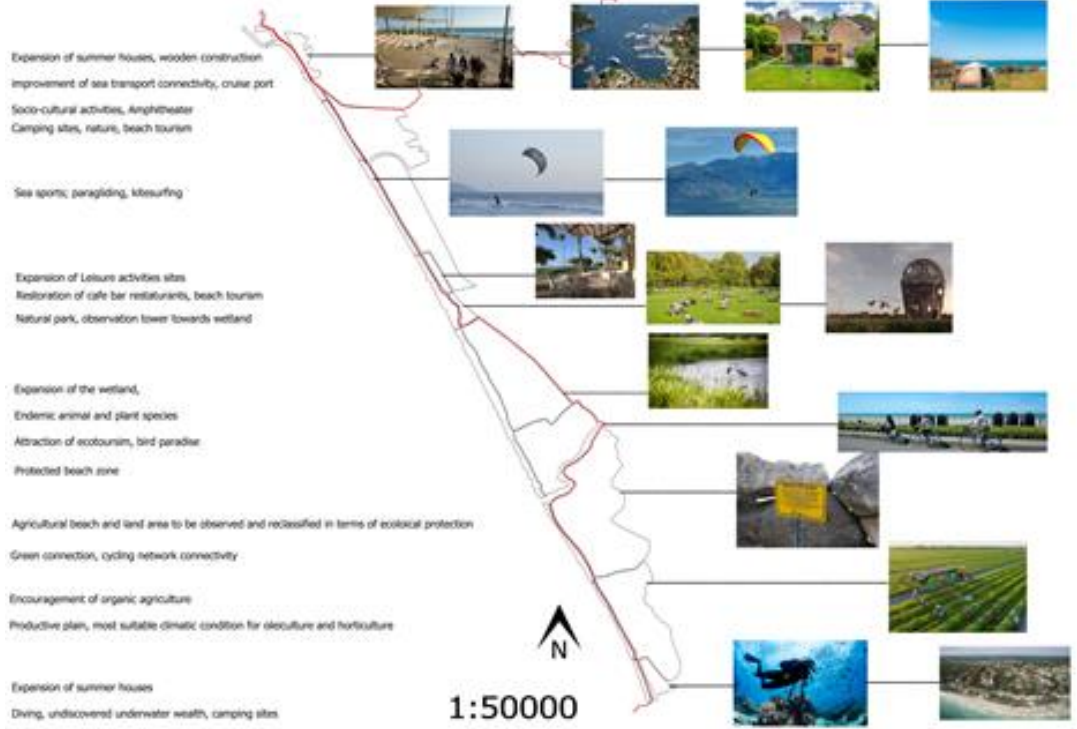


Figure 21. Structural Planning Map of Samandag Coastal Zone

6. Conclusion

Nature cannot be neglected in any planning projects. Planning which would not include environmental natural analysis definitely would bring negative results. Interactions of humans should be arranged in the balance of environmental relations

In this case study environment, social economic factors, valuable potentials, and existing potential which are already in use, has been analyzed. Solutions had been brought to the last stage with a harmony of all observed factors.

The coast, always been the most attractive habitat for humans. Always has been contained the richness of flora fauna. The potential that brings, create the biodiversity of nature and also create biodiversity of civilizations since early ages. Geographical locations, natural events, human interactions were always the main factor of the coast shapes. There are not many options to prevent fluctuation changes in coast shapes which are appeared due to natural effects or events. But there are ways to adopt a living environment in the frame of that fluctuation as we humans once we are an inhabitant of the area.

Samandağ is a town in the southern part of Turkey belongs to the City of Hatay. The coast side of the site is one of the longest sandy beaches in the world according to some anonymous sources. The length is of the beach around 14 km long. Samandag is a town which used to be a city of any civilizations. The culture, custom tradition has been shaped by time. The presence of the sea remained historical places from ancient times, custom tradition, nature makes the town very special.

As the value of all those reach factors on consideration of this study case, the study plan had been done in the frame of the factors above and brought the solutions with some implementation ideas as all included in the last conceptual plan.

The analysis of the area as has been discussed in the part of the study area and swot analysis, the structural plan has been completed as a conceptual plan based on swot report with the purpose of increasing touristic potential by the tool of green line network and sea transportation with the support of recreational ideas of the current structural planning of the site.

Form 1987 to 2007 the urbanization of the town enormously has been expanded (see Photo 10-11-12). In 1987 settlement around the coast was rarely exist. But the opposite till 2007 and today settlement as we can see in the recommended photos settlement has been spread along the coast in the high range. As a result point, we can mention that the planning of the settlement has not been organized according to coastal legislation and natural regulations. The sprawl planning in the coast (also in the town) has been created important weaknesses to the sites. The coastal area has been misused in terms of construction. The structures on the beach area represent unorganized planning. Agricultural land along the coast also has been misused for the different land use purpose. Lack of protection of the natural places, lack of protections to flora and fauna wrong use of those lands creates land degradation and loss of endemic extinct species. Due to that reason, the protection area has been extended to minimize human interaction to the wetland which is also bird paradise and natural sites the beach which is in parallel of wetland has been set as like protected beach since it is the breeding area of sea turtles and also very rare species of the seal. In this way, the endemic plant and extinctive animal will be protected rich flora and fauna protection will be stabilized in a better way. The natural park has been created next to the wetland to give an option to enjoy the nature with observation tower tower. and the area will be excluded from the rest of the settlement as direct interaction will be continuity of nature.

As we observed the same problems in main their different study points(Çevlik-Hıdırtomb-Meydan). We have given the opportunity to increase recreational area, leisure activities by defining land use once more. Agricultural land has been kept for the encouragement of organic agriculture which would be one of the main points of socio-economic improvement. Some part of lands and beach due to the redefinition of land use. the land which closes to the wetland and

also the beach around the wetland should be observed for endemic species of plant and for an active animal then the structural area could be replanned. The agricultural land border should be defined according to natural –climatic and soil types. The constructions which are on the sand beach area should be removed as they are insufficient elements of the sites.

The historical places as like the tunnel and the caves are one of the most important identical element of the places as like sea and the beach. Hıdırtomb is an identical object of the sites in terms of custom and tradition which also an important potentially turorşstic attracted places. to attract the attention of those places we retain the facilities around those potential elements. Summers houses have been extended recreational areas social areas have been including as part of the implementation project. çevlik for the current situation is the part which takes more attention then the rest of the areas thanks to historical places, port, connection to Arsuz and some camping areas. We created and recreational beach for cultural activities for local and tourist to raise the social event level of the social life n quality Way. The idea behind the creation of those recreational places is to create open-air theatre concert places facilities for sea sport activities some sea sport schools to support the implementation ideas behind. Natura beach sides in the study area have been kept as like it is for sea sport purposes.

As a supportive idea to touristic attraction, outcome and the main idea is green cycling network. Which is planned between facilities to attract the tourist to seaport beach nature. connction has been designed between Arsuz Çevlik hıdırbey batıayaz Vakıflı Samandag Hıdırtomb Meydan. eople would have a chance to enjoy the environment with full of nature different leisure activities sea sports beach cultural events camping and so on. the camping sport would be available between Arsuz and Çevlik in forest areas and around Meydan. fro one point to another one connectşon will be created by the natural network by supports of recreated structures plan reconstructed facilities.

The second main idea of improving connectivity is the port and improving the transportation around. Port located in çevlik, used to is used for trading in ancient time. Has already the best potential of connectivity. The project should be done in way of improving sea transportation. Kıbrıs Iskenderun Mersin and overseas places would be an open and accessible place through çevlik and is another way of improving tourism the attraction to Samandağ Beach.

7. Discussion

Education should be on top of the list of measures. People of Samandağ should be educated to be more aware of the value of the site, the protection of the ecosystem, willing to invest in their own sites and make them known. The site here it has potential to attract even overseas tourists. Samandağ has an amazingly valuable geography and it has priceless potential of nature, geography, and history. Truly the rational thing to do before trying to implement the conceptual plan is to make sure people are ready and educated enough to understand the importance of protecting nature. As supporting idea for this argument, seminars should be arranged by the municipalities and city planners. People's involvement should be considered and stated in the improvement plan, since if we serve this plan to the locals without their involvement, it will not give successful results.

Legal regulations should be created to ensure conditions for the ecological protection, meaning all the existing coastal dynamics. As we mentioned in the practical part of the study, constructions exist on the sand beach which are completely insufficient elements for the sites. The proposal was to remove those constructions and let the beach reorganize itself in the most natural way possible. But it is a complicated process since the parcellation of the beach is a result of owners' property rights. In this case the municipality should think about compensations for the owners for them to let the beach be natural again.

Another topic is Milleyha aquatic ecosystem area, which is a bird paradise, one of the important birds migration centers around the world. It is also very rich in terms of flora and fauna, possibly containing endemic and endangered species, but that should be investigated. The lack of knowledge from the local people of the ecological importance of the place is causing it to lose value, therefore protection actions should be taken in the very near future. Some non-governmental organizations have already presented studies for its protection, but the current situation shows us that unfortunately action is not enough. As we said and will repeat, education should be the first measure to be considered and more powerful organizations should be involved for its protection. The site should be under international observation by environmentalists and UNESCO to ensure the existence and continuity of the biota.

The advertisement of the area should be active at national and international level and highlight all historical and ecological riches and the beauty of the place. Sport activities, location, geographical conditions, customs and traditions, etc. would be supported by the proposed green cyclist network, sea transportation network and recreation sites along the coast. This will result in a better representation of Beautiful Samandağ, and a potential for eco-tourism.

8. References

- Altay, V., & Ozturk, M. 2012: Land Degradation And Halophytic Plant Diversity Of Milleyha. Mustafa Kemal University, Science & Arts Faculty, Pakistan Journal of Botany 44:37-50.
- Akiprik, A., 2011: Hatay İli Samandag İlçesi Ekoturizm Kullanımına Yönelik Peyzaj Potansiyelinin Saptanması. Selçuk Üniversitesi, Fen Bilimleri Enstitüsü, Peyzaj Mimarlığı Ana Bilim Dalı, Konya.
- Bakır, Y. N., & Doğan U., Güngör K. M., 2018: Planned Development Versus Unplanned Change: The Effects on Urban Planning Turkey. Elsevier, Land Use Policy 77 (2018) 310–321, 312.
- Candas, E. and Flacke J. and Yomralıoğlu T., 2016: Understanding Urban Regeneration In Turkey. The International Archives Of The Photogrammetry, Remote Sensing And Spatial Information Sciences, Volume XLI-B4, XXII ISPRS Congress.
- Creel, L. (2003). Ripple Effects : Population And Coastal Regions. *Population Reference Bureau Measure Communication*, 1.
- Dede, O. M., 2016: The Analysis Of Turkish Urban Planning Process Regarding Sustainable Urban Development. [HTTP:// Dx.Doi.Org/10.5772/63271](http://dx.doi.org/10.5772/63271), 269.
- Deniz, M., 2017: Analysing Cruise Industry in Terms of Turkish Tourism Sector. Balkan And Near Eastern Journal of Social Sciences. Economic and Social Development in Balkan Countries, 2017 (03) Special Issue.
- Dinu, S., M., Hacıoğlu, N., Avcıkurt, C., Efe R., & Soykan, A., 2015: Tourism, Environment and Sustainability. T. Kliment Ohridski University Press.Sofia, ISBN 978-954-0740218.

- Doğaka*, 2019, Invest In Hatay. Prague Online: [Http://Www.Hataydayatirim.Com/](http://www.Hataydayatirim.Com/), accessed 01.01.2019.
- IHDP, 2015. Coastal Zones and Urbanization. International Human Dimension programme on Global Environmental Change, 4.
- Endeksa, 2019. Prague Online: [Https://www.Endeksa.Com/Tr/](https://www.Endeksa.Com/Tr/), accessed 23.02.2019.
- Erkan, N. E., 2010: Urban Planning In Turkey as Process of Translation. Routledge Taylor and Francois Group, 191.
- Gedikli, D. D. (2011). Kıyıyı Yaşamak, Kıyıyı Planlamak. *Ortadoğu Teknik Üniversitesi, Kıyı Muhendisliği Sempozyumu, Ankara*, 24.
- Göğebakan, Y., & Saban, D., 2018: World Heritage List And Vespasianus- Titus Tunnel–An Evaluation On The. *The Journal Of International Social Research*. Volume: 11.
- Geiger, K. A., 2019. Climate-Data.Org, Prague online: [Https://En.Climate-Data.Org/Asia/Turkey.accessed](https://En.Climate-Data.Org/Asia/Turkey.accessed) 23.02.2019.
- Gursoy, N., Edelman, J. D., 2017: Regional Planning in İstanbul: Recent Issues and Challenges. Department of Urban and Regional Planning, *Current Urban Studies*, 2017, 5, 146-163.
- Güneri, S., 2013: Cevre Ve Sehircilik Bakanlığının Kurulması (644 Sayılı KHK) ile Planlama Yetkilerinin Merkezileşmesi Ve Kent Mekanına Etkileri-Çorlu Örneği. İstanbul Tekniküniversitsi, Fen Bilimleri Enstitüsü.
- Gürkan, A. G., 2016: Sustainable Land Use Planning Of Lower Asi River Basin. Faculty Of Architecture, Department Of Landscape Architecture, Mustafa Kemal University, Hatay, 61-69.
- Jones, T. M., Hall, P., 2011: Urban And Regional Planning. Routledge,London, 304 P.

- Karakaya, E., 2017: Policy-Oriented Urban Planning in 1930s in Turkey: Izmit Urban Plan. ITU A/Z. Vol 14 No 2. July 2017. 9-20, 18.
- Karatas, A., Bayram, Ç., Kuscu, V., Ege, İ., Bom, A., Özsahin, E., & Korkmaz, H., 2012: Temporal Changes In Land Use In Asi River Delta (Hatay, Southern Turkey). Journal Of Environmental Biology 33(2 Suppl):463-73.
- Khalifipour, H., Soffianaian, A., & Fakheran, S., 2012: Application of Swot Analysis in Strategic Environmental Planning: A Case Study Of Isfahan/Iran. International Conference On Applied Life Sciences (ICALS2012), Turkey, 10-12
- Kilic, S. E., 2009: Proposal For Regional Administrative Structure And Planning In Turkey. European Planning Studies, 17(9):1283-1301 .
- Klimiuk, M., 2016: The Folktale of Saint George and il-Xiđir: A Text in Christian Arabic of is-Swaydī (Samandağ). Rocznik orientalistyczny T. LXIX, Z. 2, 121–133.
- Korkmaz, H., Geçen, R., & Kuşçu, V., 2016: Coastal Edge Line Of Orontes Delta (Samandag). Fırat University Journal of Social Science, 21-35.
- Köksal Y., 2016: CSHS 517 Ottoman State and Society. Bilal Akar, MA, Comparative Studies in History and Society, 5.
- Kreinath, J., 2014: Virtual Encounters with Hızır and other Muslim Saints Dreaming and Healing at Local Pilgrimage Sites in Hatay, Anthropology of the Contemporary Middle East and Central Eurasia: 2(1), 25-66, 2014.
- Oxley, M. & Brown T. & Nadin, V., 2009: Review of European Planning Systems. De Montfort University Leicester, 24.
- Özbaykal, C., Işıkgör, H., & Yavuz, P., 2018: Hatay İl Turizm Stratejisi ve Eylem Planı 2018-2023. T.R. Eastern Mediterranean Development Agency.

- Pieprz, D., 2011: Jordan Development Zones Company. Dead Sea Development Zone Detailed Master Plan. Jordan.
- Rotnicki, K., 1995: The Coastal Zone - Present, Past, and Future. Journal of Coastal Research. Special Issue No. 22. pp. 3-13.
- Saleh, A., Blazek, T., Nuoman, & Mo, X. 2016: Galveston Island Seawall Improvement Proposal.2016.
- Samandag Municipality, 2019. Online: <http://samandag.bel.tr>. accessed 23.02.2019.
- Spence, M., 2009: Urbanization and Growth. Commission on Growth and Development.
- Sunar, H., Gökçe, F., & Altunöz Sürücü, Ö., 2018: Hatay'in Turizm Değerlerinin Online Müşteri Deneyimleri Aracılığıyla İncelenmesi. Journal Of Recreation And Tourism Research, 63-71.
- Tibbetts, J., 2002: Coastal Cities: Living on the Edge. Environmental Health Perspectives. 110: A674-A681.
- Yalçın-Özdilek, S., 2007: Status of Sea Turtles (*Chelonia mydas* and *Caretta caretta*) on Samandağ Beach, Turkey: A Few Years Monitoring Studies. Annales Zoologici Fennici 44:333-347.

9. List of Figures

Figure 1. Planning hierarchy in Turkey Planning System	13
Figure 2. Section 1	16
Figure 3. Section 2	17
Figure 4. Section 3	17
Figure 5. Image: A proposed master plan for Galveston	18
Figure 6. Linkage of Dead Sea Highway and The Dead Sea Itself	18
Figure 7. Study area in the border of Samandag	19
Figure 8. Location of Study Area in Turkey	20
Figure 9 . Location And Geomorphology Map of Asi Delta	21
Figure 10. Population changes by year for the Samandag region.....	22
Figure 11. Annual precipitaion	23
Figure 12. Annual temperature	24
Figure 13. Settlement pattern of Samandag 1960.	25
Figure 14. Settlement in Asi(Orontes) River Delta in 1987.....	26
Figure 15. Settlement in Asi(Orontes) River Delta in 2000	27
Figure 16. Settlement in Asi(Orontes) River Delta in 2007.....	28
Figure 17. Location of Main Study Points and Samandağ.....	31
Figure 18. Network of the Study Area	41
Figure 19. Excisting Direct Connection from Samandag to Surrounding	41
Figure 20. Landuse analysis map of Samandag Coastal Zone	43
Figure 21. Structural Planning Map of Samandag Coastal Zone	47

10. List of Tables

Table 1. Plan types in planning hierarchy in Turkey	12
Table 2. The latest effort at improving planning in Turkey	14
Table 3. Planning process step	15
Table 4. Internal factors	33
Table 5. External factors	33

11. List of Photos

Photo 1. Seleuceia Piera downtown.	34
Photo 2. Samandağ-Çevlik (Seleuceia Piera today).....	35
Photo 3. Vespasianus Titus Tunnel.....	36
Photo 4. Vespasianus Titus Tunnel.....	36
Photo 5. Vespasianus Titus Tunnel.....	37
Photo 6. Uptown of Seleuceia Piera.....	37
Photo 7. Hızır pilgrimage site in Samandağ.....	38
Photo 8. Cradle(Beşikli) Cave.....	39