## AUTHORITIES OF LOCAL ADMINISTRATIONS IN THE MANAGEMENT OF MARITIME TRANSPORTATION AND COASTAL AREAS

# A THESIS SUBMITTED TO THE GRADUATE SCHOOL OF APPLIED SCIENCES OF UNIVERSITY OF KYRENIA

By AL ÖNCÜ

In Partial Fulfillment of the Requirements for the Degree of Master of Science in Maritime Transportation and Management Engineering

KYRENIA, 2015

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# Ali ÖNCÜ:AUTHORITIES OF LOCAL ADMINISTRATIONS IN THE MANAGEMENT OF MARITIME TRANSPORTATION AND COASTAL AREAS

# Approval of Director of Graduate School of Applied Sciences

Prof. Dr. lkay SAL HO LU

We certify this thesis is satisfactory for the award of the degree of Masters of Science in Maritime Transportation and ManagementEngineering

#### **Examining Committee in Charge:**

Prof. Dr. Mustafa ALTUNÇ GÜ-DenizcilikFakültesi

Assist. Prof. Dr. Gülsün BEKTA GÜ-DenizcilikFakültesi

Assoc. Prof. Dr. Serdar KUM TÜ/GÜ-DenizcilikFakültesi

Prof. Dr. Deniz ÜSALAN DokuzEylülÜniversitesiDenizBilimleriEnstitüsü

Assist. Prof. Dr.Cemil YURTÖREN TÜ DenizcilikFakültesi

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

Name, Last name: Ali ÖNCÜ

Signature:

Date:

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#### **ABSTRACT**

Municipalities are the institutions which know the regional problems better than any other authority, as they are the closest governmental unit to the public. Ensuring the participation of public in the administration, improving life quality within borders of the municipality, regional public wealth, peace and welfare, meeting the local requirements in a modernized attitude are among the main duties of the municipalities.

Activity and service areas of local administrations have been increased progressively during the recent years. Since the environmental problems have no limit in their nature, all communities are affected by the increasing regional issues which can be felt globally. Considering the environmental problems only in the surrounding of our island and trying to solve those by coastal management systems would not be possible. The environmental problems should be taken into account by the all stakeholders, having integrated coast management on mind. It is our priority to protect the environment and prevent pollution by information sharing with interested parties.

Reviewing local administrations' approach towards environmental and marine activities, examining authorities, responsibilities and measures can be taken by the local administrations, a general picture of the country is revealed. It is determined that considering the environmental problems globally would be more helpful for our country since it is an island. It is required to prepare joint project, share information and experience with the other countries which have coasts in the Mediterranean. Even if the issues related to non-recognition of the country would not be solved in the short term, I would emphasize that there is a hope for peace in the following period however it should be known that the local administrations have many steps to take for the environment. Regarding sea transportation, local administrations do not hold any entity although our country is an island. The aim of this study is to better understanding of marine activities, municipalism, importance of marine environment and protection of coastal areas, local administrations and maritime transportation in the TRNC, by comparing it with other countries. Gathered data as a result of this study revealed that the country had many deficiencies about those issues.

**Keywords:**TRNC; Local Administrations; environment policies; legitimacy concept; integrated coast management; marine activities

#### ÖZET

Belediyeler halka yakın birimler olmasından bölgesel sorunları en iyi bilmelerinden dolayı, halkın katılımını sa layabilmesi, belediye sınırları içinde halkın ya am kalitesinin geli mesi, belde halkının refahı, mutlulu u ve esenli i konusunda ortak yerel gereksinimlerin ça da bir anlayı ve tutum ile ele alınması görevi vardır. Yerel yönetimlerin faaliyet ve hizmet alanları son yıllarda gittikçe daha da artı göstermi tir. Çevrenin ve çevre sorunlarının sınır tanımayan özelli i nedeniyle bölgesel sorunların birle erek küresel boyutta ço alarak hissetmemizi sa lıyor çevre sorunlarını sadece adamızın etrafında dü ünmek kıyı yönetim sistemiylesorunları çözmek mümkün olamayacak bunu bütünle ik kıyı yöntemiyle tüm payda larla beraber dü ünülmesi bilgi payla ımı yapılarak çevrenin korunması konusunda ve çevre kirlili inin engellenmesi hepimiz için öncelik te kil etmeli. Yerel yönetimlerin çevre ve denizsel faaliyetler konusunda yakla ımları incelmi, yerel yönetimlerin yeki, sorumlulukları yapabilecekleri konusunda bir ara tırma yapılarak ülkemizdeki tablo ortaya konmu tur. Ülkemizin ada ülkesi olması sebebiyle özellikle çevresel sorunların ancak küresel dü ünerek çözülece i kıyı alanlarında Akdeniz'de kıyıları olan tüm payda ülkelerin ortak projeler üretmesi bilgi ve birikimlerin payla ılması gerekirken siyasal tanınmamı lı ın verdi i sıkıntıları kısa vadede çözemesek de ilerleyen günlerde bir barı umudu içinde oldu umuzu vurgulayarak yerel yönetimlerin daha çevre konusunda kat etmesi gereken yolunun oldu u, denizula ımı konusunda ada ülkesi olmamıza ra men zaten az olan deniz ula ım hacminde yerel yönetimlerin elinde herhangi bir te ebbüs bulunmamaktadır. Bu çalı manın sonucunda ortaya çıkanlar ülkemin bu konularda çok eksi inin oldu unu

ortaya koymaktadır.

**Anahtar Sözcükler:**KKTC; Yerel yönetimler; Çevre politikaları; yerindelik kavramı; bütüncül kıyı yönetimi; Denizsel faaliyetler

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#### LIST OF ABBREVIATIONS

**AEA** : Europe Environment Agency

**DPT** : DevletPlanlamaTe kilatı

**EIA** : Energy Information Administration

**EIA** :Environmental Impact Assessment

**EMAS** : Environmental Management Systems

**EU**: European Union

**GIS** : Geographical Information Systems

**IDO** : Istanbul DenizOtobüsleri

**IMO** : International Maritime Organization

**ISO** : International Organization for Standardization

m : meter

NGO : Non-Governmental Organization

**NPP**: National Physical Plan

**SEA** : Strategic Environmental Assessment

**SWOT** : Strengths, Weaknesses, Opportunities and Threats Analysis

**TRNC**: Turkish Republic of Northern Cyprus

**UN** : United Nations

#### **CHAPTER 1**

#### INTRODUCTION

Cyprus Island is the third largest island in the MeditterraneanSea, following Sicily and Sardinia. It is politically divided into two parts, Turkish Cypriots living in the Northern and Greek Cypriots living in the Southern part. Being a member of the European Union (EU), our southern neighbour which has completed its integration is the country recognised by the world. On the other hand, Turkish Cypriot community, after foundation of Turkish Republic of Northern Cyprus (TRNC) in 1983, has been experiencing isolations, left alone by the EU, whereas most of its citizens are individually citizens of the EU. Having EU citizenships individually does not help for solving the problems of whole community. Due to non recognition of the companies running marine activities in the TRNC, one of the main difficulties our country faces is lack of direct trade. It is not possible for our ship owners to invest in their companies as they are overwelhemed by the economical conditions. As a result of that we can not take advantage of the EU funds and the government does not provide any incentives for the marine activities, companies are hardly taken a step towards the better future. There are 28 municipalities in TRNC. Altough all areas in the country are within the borders of a municipality, there are six municipalities which can provide all services needed. Other municipalities are not able to provide all the services because they are small scaled. The central government takes the stage in this case and provides the services in which the municipalities can not do so. However, this practice contravenes with the legitimacy concept. Especially in coastal areas, local administrations have a lot of responsibilities. Coastlines are generally preferred for residential purposes, as people buy their second houses for vacation near coastal areas. This makes those regions attractive. Acceleration of industrialisation leads new requirements, so that the natural and ecological balance in coastal areas interrupted. For conservation of the values we posses, scientifical reports should be prepared in advance to show technical, economical and social decisions. Preventing individual interests to take precedence over communal interests, projects should be produced in a way of solving communal problems instead of individuals.

It is aimed to set up a system, in consultation with stakeholders such as the local administrations in the coastal areas, the government, non governmental organisations,

universities, for determining long term objectives and taking decisions to maintain the ecological balance. Setting up a model project on a coastline may reduce concerns of the public, while all individuals would be benefitted from the opportunities in the region.

These objectives should be opened to the public consultation by taking legal actions (regulation, ordinance, legal decisions, and legislation) and preparing Energy Information Administration (EIA) Reports and planning procedures. As a result of cooperation between the stakeholders, the countries having coast in the Meditterranean sea have laid down coastal area management and integrated coastline management in order to prevent environmental issues on aforementioned regions and their surroundings. A system which will bring legitimacy principle to forefront should be foreseen. Any marine activity that local administrations have authortiy does not exist in the country yet. Although the sea transportation is in various ways in the EU countries and Turkey, local administrations are still continuing to carry out few marine activities.

In our country, rules on authority sharing are very stricted by the central government and no politician is willing to change those. While having problems arising from the contrys non recognition due to political situation, we should harmonise to EU legislation as soon as possible. This harmonisation should begin in every field. If we do not want to risk our future, we should take necessary steps on time.

#### 1.1 Marine Activities and Municipalism in TRNC

Total coastline length of Cyprus Island is 782.5 km, while the Northern part is 396.0 km (50.61%), the Southern part is 307.90 km (39.31%) and British bases area is 78.90 km (10.08%). As it is understood, 67% of our country consists of coastline which is 396.0 km long.

- Turkish Language Institution has defined "coast" as "the point where territory and sea meets". In accordance with the Law on Shores (01/07/1992)
- Shoreline; shall mean the line formed by merging the points where water meets the territory, except overflows in natural or artificial streams, lakes and the sea.
- Shore edge line; shall mean the natural border of sand, gravel, cliff, stony
  places, reeds, wetlands and similar areas which are formed by the water
  movement towards the territory, immediately after the coastline in the sea,
  natural or artificial streams and lakes.

• Coastline; shall mean the area having 100 m horizontal wide towards the territory, beginning from the shore edge line.

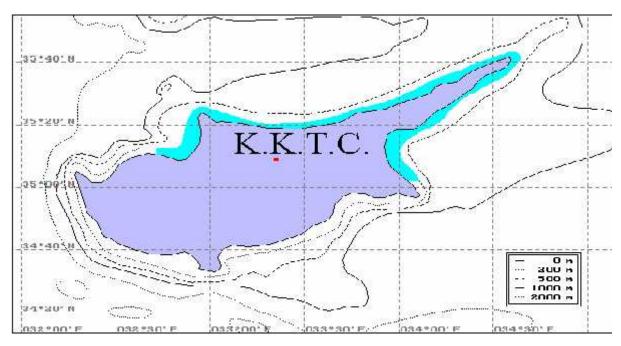


Figure 1.1:TRNC Shoreline

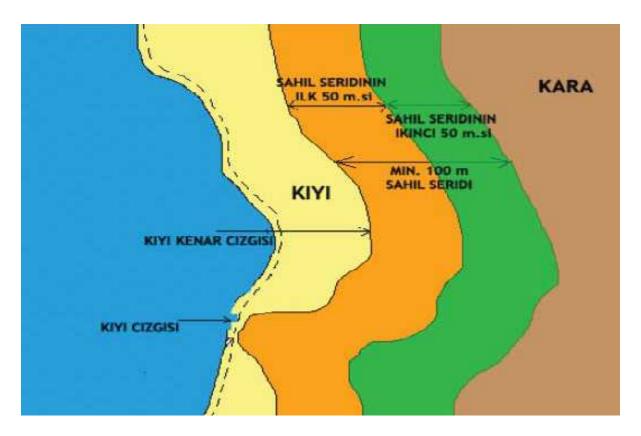


Figure 1.2: Visual explanation of the definitions in the Law on Shores (Gedikli, 2013)

Brown: Territory, Green: 50m of coastline, Orange: prior 50m of coastline,
 Yellow:Shore, Line between yelllow and orange: Shore edge line, Dashes:
 Shoreline

Characteristics of shorelines in the MeditterraneanSea differ from country to country. Shorelines are continuously in change. In the Northern Cyprus coastline, there is a sensitively balanced habitat of various living creatures. The only factor ruins the sensitive balance is human beings.

"The Mediterranean is not only complex in ecology, but also sociopolitically – twenty-one countries border this heavily used sea. Barcelona Convention (the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean) embodies international partnership to protect the sea, its coasts, and the uses and livelihoods that it supports. The Barcelona Convention provides a critical framework for setting environmental standards and targets that are agreed to by all the Contracting Parties, as well as for sharing important information for management. The Barcelona Convention"s main objectives – to assess and control marine pollution; to ensure sustainable management of natural marine and coastal resources; to integrate the environment in social and economic development; to protect the marine environment and coastal zones through prevention and reduction of pollution, and, as far as possible, elimination of pollution, whether land or sea-based; to protect the natural and cultural heritage; to strengthen solidarity among Mediterranean Coastal States; and to contribute to the improvement of the quality of life – have spurred much progress" (UNEP/MAP, 2012).

The current position of marine activities in our country will be examined under two subtitles as Harbour works and Maritime affairs.

#### 1.2 Harbour Works

Especially Gazima usa harbour has been a busy harbour, for transit cargo facilities, in history due to its location. Container transportation has become a promising activity for future. In case of a change in our countrys" political status, these activities would lead a significant return in the economy. For an increase in transit cargo capacity, good infrastructural projects and investment are required. All harbours in the country should be improved in technical and administrative way in order to be able to compete with the harbours in the southern Cyprus.



Figure 1.3:Gazima usaHarbour

- Cruise tourism is not developed in the country and the biggest factor is that we do not exist in the international arena. For the future, we need to prepare necessary infrastructure in field of tourism at harbours. Acceleration in cruise tourism and an increase in the number of passengers' movement in the Mediterranean Sea can be seen in the current position. If good infrastructual steps will be taken, I believe that significant income would be ensured from cruise tourism, especially through Gazima usa harbour. It is inevitable that our country would be a favourite tourism destination.
- Yacht tourism at harbours; yacht accommodation capacity in the country is currently low. However, developing yacht tourism may pose advantages, in the future, due to island's location. We may increase the interest to the region by organising more activities. The biggest yacht tourism investment in TRNC is made in Karpaz peninsula (Karpazgate Marina, 300 yacht capacity) and the capacity is quite good. Only KarpazgateMarinacan not ensure sufficient development in this field.So, other tourism activities should bein parallel with

the activities organised at Marina. This would ensure important gains to the country in respect of tourism.

#### 1.3 Maritime Affairs

• Sea transportation is performed by large and small 20 companies in our country. The harbours are in Gazimagusa (city harbour for cargo ships, Kalecik harbour for fuel, plaster, and cement), Girne (yacht harbour and Teknecik filling facility) and Gemikona 1. Even if it is a small-scaled activity, container and Ro-Ro transportation are carried out in GirneandMa usaharbours. Besides, there are 6 fishing port in the country.



**Figure 1.4:**Girne Tourism Harbour Docks, View from the South after Additional Dock Construction in 2000



Figure 1.5: Ancient Girne Harbour in 2002

• Fishing activities have very small contribution to the countrys" economy since fish stock at coasts is very low apart from Karpaz peninsula and also due to lack of far distant fisheries. An improvement in this sector is prevented. Nowadays, the amount of fish production is approximately 500 tonnes/year. Consequently, imported products bridge the gap in the sector. As the government does not make necessary investment or the EU funds do not support fisheries, no step forward can be taken.

#### 1.4 Local administrations in the TRNC

All residential areas in the country fall within the borders of municipalities which are 28 in total. Municipalities are the institutions which know the regional problems better than any other authority, as they are the closest governmental unit to the public. Ensuring the participation of public in the administration, improving life quality within borders of the

municipality, regional public wealth, peace and welfare, meeting the local requirements in a modernised attitude are among the main duties of the municipalities.

Besides, municipalities have to perform its responsibilities, considering the opinions of people living within the borders of the region, such as providing public services in a fair and equal way. Local administrations should also have authority in the places such as harbours, fishing ports, marinas including coastal areas falling in their region. Municipalities should also ensure coordination with the NGOs (Non-Governmental Organisation), other public and private institutions, and try to minimise pressure from the other parties. Environmental problems are gradually increasing due to population increase especially in Girne, irregular urbanization, consumption frenzy and negligent people. The central government holds the authority of harbours and shorelines. Lack of coordination between the government and local administrations leads confusing in practice. Committees that have representatives from local governorates, NGOs and the central governments should be established under local administrations. Municipalities should work in compliance with the central government in respect of planning, implementing, controlling, taking measures and establishing appropriate policies according to current conditions. As a result, municipalities should be competent and effective at marinas, harbours, yacht harbours and shorelines. It is very obvious that we need to come a long way in this area.



Figure 1.6: Girne Municipality Coastline Project

#### 1.5 Local Administrations and Environment

Most of the needs in daily life are in the scope of local administrations' service area. For this reason, maintaining and preserving good living conditions, increasing life quality of individuals can be involved in the responsibilities of local administrations. Preventive, constructive and effective environment management and developer policies are established for local administrations to take responsibility and direct authority for environment protection (Geray, 1998).

"Concept of environment covers potentialdirect and indirect physical, chemical, biological and communal factors on people and living creatures at a specific time period. When we look at the definition of mutual interraction of people and living creatures earth, air, water, underground resources and climate" (Kele and Hamamcı, 2002).

We can easily say that importance of environment in Municipalism in Turkey has started long ago, comparing to TRNC. Environment management and policies should interest all the countries having shores to the Mediterranean Sea, and need common action. Result of the Mediterranean action plan has some missing points because we are not able to move forward together with our neighbour in South. Regional or local problems will be seen to threaten all stakeholders in time. Environmental pollution in TRNC continues along the shoreline, especially in Girne region. Irregular developments at coasts, industrial facilities, running out and pollution of water resources, air pollution, and domestic waste can be considered as main environmental threats. Each passing day environmental problems are continuously increasing and accumulating, disturbing the people living in the country.

"Environmental problems have not been raised in one day but revealed theirselves in time by accumulating; urbanisation, industrialisation, increasing population and technology have worsened the existing problems. Especially, industrialisation and urbanisation are the factors speeding up the environmental problems. Those problems were presented long time ago, however both industrialisation and urbanisation, besides developing technology are now converting pressure, deterioriation, losses to a big problem in the community. This affected balance between people and environment, driving a wedge between the nature and human beings" (Kele, Harmanciand Coban, 2009).

#### 1.6Environmental Management System and Current Status of Local Administrations

Just like improvements at the practices followed in environment policies and protection of natural habitats, we have experienced improvement also in the management systems.

Obviously, we cannot underestimate the interraction with the EU for these improvements. In the way of EU harmonisation, the most important model is ISO 14001. In Turkey where it is mandatory, many companies have been entitled to receive this certificate, whereas in TRNC it can be taken on voluntary basis. So, the standards function on voluntary principle. Turkey has made progress in complying to ISO 14001 standards Environmental Management Systems (EMAS) since the EU has good intentions towards the local administrations in Turkey. ISO 14001 Standard based on "Plan-Implement-Control-Take Measure" methodology. This methodology can be explained as follows; "plan" covers setting up necessary objectives and processes for announcing the results in compliance with environmental policy of the company. "Implement" stands for putting planned processes in practice. "Control" shall mean reporting of results of monitoring and implementing policies and objectives in accordance with legislation and other conditions. "Take measures" covers taking measures for constant improving of environmental management system performance. ISO 14001 may be explained as follows;

- The main objective is minimisation of environmental damage posed by the company,
- It is a way of standardisation focusing on production process instead of the final product.
- Regardless of company size and the sector in which the company carry out activities, it is an applicable management system.
- It is voluntary based.
- It has a global language and documents the compliance of the companies to the international standards.

Companies' objective for issuing this certificate is to prove their sensitivity to its customers and gain trust (ISO, 2015). It is observed that Turkey was also below the desired level about this subject. As the EU legislation is not in force in TRNC, current situation about these standards are nor even getting closer to the desired level. The most important factor is that the central governments are reluctant to the compliance. We can define responsibilities and obligations of the municipalities as legal, technical, administrative, institutive, ecomomical and human related.

#### **CHAPTER 2**

# SIGNIFICANCE OF MARINE HABITAT AND PROTECTION OF COASTAL AREAS

Environmental management is regulated under the Environment Law and the Constitution in the TRNC. Every citizen has right to live in a safe and balanced environment. Any natural or legal person shall not dispose, for any purpose, liquid, gas, or solid waste to the dams, streams or lakes, which potentially threatens public health or marine habitats. Improving, protecting environment and preventing pollution are the vital duties of the Government and natural/legal persons living in the country(KKTCMahkemeleri, 2015).



Figure 2.1: Karpaz peninsula

We should protect Karpaz region for the next generation and explain them significance of such a unique beauty.

#### 2.1 Environmental Management

It consists of implementing policies and strategies which are laid out in local, regional, national and global level for meeting current and future generations' needs without causing any impact on the environment, by using administrative, technical, legal, political,

economical, sociological and cultural means in order to ensure sustainable use and improvement of natural and artificial environment aspects. Generally, environmental management aims to protect the nature both in short and long term, prevent deterioriation, inspect disposal of waste, maintain good natural cycle, improve natural habitats (Kızılbo a and Batal, 2012). Environmental management process covers establishment of an organisation which will ensure communication, planning, coordination and inspection both in public and private sector in order to protection, assessment and improvement of natural resources for giving opportunity to living creatures to live in a safe and balanced environment (Kele et al., 2009). As it can be understood from the definiton, objective of the environmental management is to find an answer to the question of how and in what extend we can make use of natural resources such as air, water and soil, preserving the ecological balance. Environmental management which prioritise presence of balance in use of natural resources may also be linked to sutainable development (Yılmaz, Bozkurt and Ta kin, 2005). In the world where the natural resources stay the same and population increases, the need of an environmental management is obvious(Geray, 1998). Coastlines are generally preferred for residential purposes, as people buy their second houses for vacation near coastal areas. This makes those regions attractive. Acceleration of industrialisation leads new requirements, so that the natural and ecological balance in coastal areas interrupted. Problems raised in coastal areas are mostly a result of human activities. People cause a significant impact on the environment by using the natural resources for their own interest. As a result of increase in pressure by the sensitive parties, it became a must to consider coastal areas as special protection areas in terms of quntity and quality ans set up a new implementation system. Prior to general planning in the country, preparation of an inventory where all items are evaluated in detail and a national physical plan are ver essential. Privatisation of natural resources should be prevented, adn those should be kept under authority of municipalities and the government. Environmental permits should not be given to the projects which have potential impact on the environment. Natural resources especially in the coastal areas are owned by the whole population. Planning permit for coastal areas should not be issued. Public consultation and involving NGOs to evaluations of any project are vital. We experienced an example about a petroleum filling plant project, when it was published NGOs and the media, whom the opinion towards the project was negative, applied a pressure on the government. Consequently, the project has been refused. Global environmental problems became a threat for human beings. Beside those problems, local and regional environment problems also lower life quality. Environmental problems continue to reveal theirselves, rising locally and spreading to the world. This presents the need of evaluating and solving the problems by handling them locally and considering them globally. Besides the importance of coordination among the countries for finding solutions to global environmental issues, regional and local studies also play an important role. Pollution is mainly caused by human activities which lead deterioration and the environment can neither renew nor recycle itself. Examining the deterioration of the environment, we can say that the most obvious result is damage on all living creatures' habitats. The most significant type of pollution is "air pollution", followed by "water pollution". Authorities try to minimisine pollution by making studies in legal level. Increasing amount of wastes and the waste problems are taken into account by the local administrations by specific projects. Another environmental problem is soil pollution which is becoming worse; use of soil for wrong purposes and erosion are the main reasons. Lastly, noise problem; comparing to the others this poses few problems in the country. Some preventive measures are taken to minimise noise problem.

In consequence, increase in population, consumption habits of people, rapidly developing technology are the main reasons of pollution. Measures and projects for environmental protection remain incapable since the pollution continuously increasing and changing itself. For this reason, more extensive projects should be prepared in coordination eith the other countries beside of making legal amendments locally. Economical, technological, scientifical, legal, social and political aspects may all be taken into account while examining environmental issues. If problems would be handled in an extensive way, considering all aforementioned aspects, then the solution would be more permanent giving opprtunity to live in a safe environment to the next generations. The National Physical Plan (NPP) has been presented to all NGOs in the country for consultation. In strategical objective, natural resources, biological diversity, preserving historical and cultural heritage, preventing pollution and environmental risks are identified. In the plan, apart from the economical importance of the environment, policies would be written down for good management of ecological values, establishing tourist attractions, maintainig public health and high quality living standards. Other benefits of the National Physical Plan are listed as follows; the plan will cover necessary measures to prevent deterioriation of natural beauty and ecological balance and to ensure balanced investment in the country.

The National Physical Plan Monitoring would be set up for updating the plant in regular intervals. It will constitute a strategical framework of prioritised region plans and ordinances and development plans in accordance with the Law on Development. The Plan would ensure a consistent and fair investment medium needed by the investors and business networks. Maintaining sustainable development, compliance with the EU acquis and policies, responsibility sharing and common administration, effective approach, protection of natural resources, biological diversity, historical and cultural heritage, elimination of pollution risk from the coastal areas and minimising the impact on the environment are key objectives of the Plan. TRNC Strategic Plan, it is stated that for a safe island having ecosystems with high biological diversity, we should acquire ability to act together with the other countries which have coasts in the Mediterranean Sea. Our country is a precious island that has complex ecological, sociological and political characteristics. The Barcelona Convention provides a framework for setting environmental standards and objectives that are agreed to by all the Contracting Parties, as well as for sharing important information for management. Just like in the other Mediterranean Coastal Countries, natural and cultural values of coastal areas are under duress due to pollution and urbanization pressure.

Marine and Coastal Protection Areas should be established and inpected by all stakeholders in order to ensure sustainability. All living creatures in the Mediterranean hanged by thread because of sea pollution, fisheries, industrial facilities and other human activities. For instance, all above mentioned thread also apply for the sea turtles (Caretta-caretta) that have nests in some of our beaches. Overuse of resources in the Mediterranean threatens the ecosystem.

#### 2.2 Ecosystems in the Mediterranean

Recently, the sea has become an ideal disposal area for the wastes generated as a result of human acitivities. It seems that the wastes dissapear instantly in the sea. Tragically, a complex combination of pollutants exists in the coastal waters (Ornat, 2012). Since territorial and marine habitat differs, special expertise is needed in examining sea pollution. These different features of the habitats are also varying from one country to another. So that, information exchange among the countries is also important. For instance, if any

accident occurs in the Mediterranean Sea, it affects all coastal areas in the region, so all relevant countries should be informed to minimise the impact.

- Over consumption of resources
- Physical changes
- Sea Pollution
- Introduction of foreign species
- Global atmospheric changes

"Governments which are participants of local or world organisations may establish an environment for protection, research and sustainable use of marine organisms and ecosystems; however they may also cause conditions which have potential harm to aforementioned aspects. There are many reasons behind that the governments and international state institutions seem preventive for each other instead of helping each other for protection of the marine habitat. Existence of big differencies between the industrialised and developing countries is the most important political obstacle in front of solving environmental problems. Marine habitats are under a great risk due to these differences and conflict between the countries. Reflection of this can clearly be seen in the Mediterranean, as the northern coast are surrounded by industrialised countries of Europe (France, Spain, Italy, Croatia, Jugoslavia, Greece etc) while the souther coasts by the developing countries (Morocca, Algeria, Tunisia, Liberia, Egypt)" (Badalmenti, 2000).

Concept of environment shall mean the combination of physical, chemical, biological and communal factors which can directly or indirectly affect any area of ourlives, in a specific time period. It also defines the relation of these aspects with the living creatures. World countries which face significant environmental problems had to review the past actions and consequently understood that they could not overcome the problems by theirselves (Bozkurt, 2010). In this concept, important responsibilities are given to the countries at national and international events on environment and environment management concept has been revealed as a result of these activities, which aims to minimise environmental problems. Environmental management can be considered as the combination of planning, organisation, recruitment, coordination and communication, cost-benefit calculations, implementation and inspection, and the rational use of resources (Toprak, 2003). We can also say that it is a time period for balancing the needs of community with effects of activities for meeting those needs. Recently in Turkey, we can see that local administrations have been given more authorities for environmental management as the main competence is under Environment and Town Planning Ministry. Moreover, important

aspects and responsibilities in relation to water, seqage systems, environment health, cleaning, solid waste, afforestation and green areas have been given to the municipalities under the Law on Municipalities (no:5393) in Turkey where the environmental developments have already reached a certain level. However, in our country although we are living together in the island, we act completely independent from each othewith out neighbour in South. Environmental issues are local in the beginning, however they have characteristic of spreading around, reaching to international levels. Environmental regulations and policies in the TRNC are mostly under authority of the central government. The central governments are not willing to share authority with the local administrations.

#### 2.3 Coastal Areas (Protection)

According to definition introduced by Turkish Language Institution, coast described in general means as the point where territory and water meets. Yet, there are various physical factor and natural processes that shape the concept of coast. These cause the coast to have a dynamic structure, changing constantly. Coast, in whinh wide varies depending on meteorological events, may be defined as a border line where water of the sea, lake and stream contacts the territory (Kibaro lu, 2009).

Coasts have been the focus points of modernisation in the history because of unique natural resources and gained sociological importance in terms of use and settlement purposes. The coastal areas where settlement, social and economical activities are intense encounter some problems. There is a need of systematic and sustainable coastal management for protection, improvement and sustainable use of natural and environmental resources. Coastal areas with unique resources have always been demanded. Those areas attract people because of efficiency, wealth and easy access to international market and also play an important role in national economy of many countries. The importance of coastal areas will increase in the near future depending of the population living in those areas (Adler and Kay, 1999).

In the econonomies depending on population, there is a need for coastal areas and resources related to those. At the same time, we should consider the threads coming with the needs; losses in territorial resources that have visual and natural value, in historical and archeological remains, in living species. Problems such as an increase in destruction of natural resources as a result of natural disasters (erosion, flood, and earthquake) and

unbalanced overuse of territorial and water resources in the regions can be observed. In relation to the interest rising towards coastal areas, we also face some other problems such as air pollution, general environment pollution, noise and various complexities. As we enter 21st century, it is obvious that the threads on coastal areas would gradually increase. Being aware of the existing resources are limited, many studies have been initialised to fing long term solutions to the problems. In the focus of these studies, long term protection of vital elements and areas in the region is discussed. In the development of our coastal areas, for maintaining balance between long term and short term and understand objectives it is needed to support the system with appropriate and latest engineering technologies and socio-economical elements. In consequence, coastal areas should be improved and arranged well as soon as possible. Aiming to maintain balance and preserve the integrity between nature, environment and species, we should identify pollutants and try to eliminate or minimise them by using Geographical Information Systems (GIS). Protection of Coastal Areas under TRNC Constitution (Article 38), coasts at the possession of the state shall only be used for public interest.



Figure 2.2: An image from Karpaz peninsula

Facilities owned by the state, vital and for public interest shall only be established in the area falling within 100m coastlines for the coastal areas out of municipality borders. However, those facilities shall not deteriorate natural beauty of the coastal areas. Future condition of existing buildings or facilities shall be regulated with legislation. Rules on protection of coastal areas within the municipality borders and facilities which can be

constructed in 100m wide coastlines shall be regulated with legislation, respecting urban planning and public interest.

With intention of national security, public order, public interest, public health and protection of environment, unless it is restricted by any law, entrance to 100m wide coastlines shall not be prevented and subjected to fee.

Sanctions and penalties shall apply on ships and other vessels that cause pollution, infringing Article 19 of Environment Law which lays down restrictions and bans, in coastal areas, territorial waters and harbours under authority of Turkish Republic of Northern Cyprus. Sanctions shall be applied by Harbours Department if the pollution is within borders of inports and outport, and by Coast Guard Command if the pollution is in territorial waters out of harbour borders.

#### 2.3.1 Why the coastal areas need to be managed?

Since the people have prefered to live in the coastal areas, individual demands became prominent and protection of the environment was ignored. Recently, developments in industry and trade revealed active reaction activities that shoul be planned in framework of policies. Improvement of resources in the coastal area and encouraging the use for public interest would be achieved only by implementation of technical decisions on environmental and economical issues. A model based on scientifical studies may be helpful. Citizens expect from the government to balance demands bearing public interest on mind, to minimise the environmental impacts as a result of demand misevaluation and to apply reasonable restrictions on use of natural resources in the coastal areas. The coastal areas should be managed systematically and regularly in order to control developments and the problems in the region. This method is called coastal area management.



Figure 2.3: A sample of oil discharge near Kalecik Terminal

#### 2.3.2 Objectives of defining coastal area management methods

- Identifying mutual effects of coast use and institutions in a balanced and planned way.
- Establishing a decision mechanism and integrated policy which cover all stakeholders, in order to promote common and balanced use of natural resources.
- Focusing on common shares in coast management.
- Preparing a status evaluation, estimating the future developments and identifying institutions" performances, strength and weaknesses for projects. In other words, SWOT analysis.
- There is a complex combination of pollutants in the coastal waters. So that, encouraging implementation of Environment Information Systems which reflect changes with presence of pollutants.



Figure 2.4: Kalecik oil spillcleaning

 The central government should involve local administrations, environment organizations, NGOs in planning and decision taking processes. Exchanging information among the stakeholders via Environmental Impact Assessment (EIA).

The coastal management system is a modern management model which enables maintenance of efficiency and coherency of decision, implementation and inspection preocesses, while establishing group of specialised people to inspect conformity of activities to the decisions. It also defines objectives in a consistent way (Serdaro lu and Yıldırım, 2011).

#### 2.4 Environmental Impact Assessment Report in Turkey

In the Republic of Turkey, Environmental Impact Assessment (EIA) is defined as follows, in Article 4 "Definitions" under Environmental Impact Assessment Regulation published on 17 July 2007. Environmental Impact Assessment shall mean studies for determining

significant and insignificant effects of a project on the environment, minimising or preventing the significant impacts by taking some measures, evaluating proposal technologies and alternatives while taking those measures, implementing and monitoring the projects.

Control measure' principle which is among the main principles and objectives of environmental policies foreseen to take immediate measures before acquiring scientific evidence in case of a project is estimated to have any significant impact on the environment. Environmental Impact Assessment is also a tool for preventing potential impact on the environment. It is very diffucult, costly and almost impossible to restore the destroyed environment to its previous condition. Aim of the environmental impact assessment is to identify significant impacts with a proactive approach and take measure for eliminating or minimising those(Güler and Çobano lu, 1994).

#### 2.5 Environmental Impact Assessment in the European Union Countries

Environmental Impact Assessment has been revealed in the USA in 1970s, and then has been adopted as a binding Regulation for the EU countries, under Environment Directive (85/337) in 1985. In Turkey, EIA implementation came into force in 1983, with Article 10 of Environment Law (2872).

Europe Environment Agency (AEA) is a key institution who plays an important role in the EIA subject. AEA is in charge of providing safe and independent information about the environment. It is also an information resource for public, beside of the experts who work on developing, implementing and evaluating policies. Along with the EU countries, Norway, Iceland, Liechtenstein and Switzerland, Turkey is also a member of AEA. The agreement on Participation of Republic of Turkey in European Environment Agency and European Information and Observation Network was signed in 2000. In the adoption process of the agreement, it entered into force by the Law numbered as 4794 on 23/1/2003 at the Parliament of Turkey.

#### 2.6 Environmental Impact Assessment in Turkish Republic of Northern Cyprus

An EIA report in the TRNC is evaluated by the Environment Protection Department under Ministry of Tourism, Environment and Culture.

- Environmental Impact Assessment shall be carried out for all project proposals which have potential significant impact on the environment.
- Strategic Environmental Assessment shall be carried out for all plans and programmes which have potential significant impact on the environment, aiming to contribute for taking environmental aspects into consideration, by the relevant sector, and to protect the environment.
- Before the competent authorities reach any conclusion about the projects which
  have significant impact on the environment, in scope of EIA and SEA
  (StrategicEnvironmental Assessment), public and all relevant institutions and
  organizations are given opportunity to present their comments.
- In the evaluation and decision making processes of the project proposals, comments and feedback received from the public and relevant institutions shall be taken into consideration.

Until preliminary scanning is completed for the projects which are subject to EIA, no permit, licence, approval or incentive shall be given to the investor. These rules shall apply for both public and private sector, including the government, local administrations and other public institutions. EIA repors are evaluated by Environmental Impact Assessment Commissioni established under Environment Protection Department.



Figure 2.5: A coastal area from the TRNC

#### 2.7 Issues in Coastal Areas

Coastal areas have been always prefered due to rich natural resources, cultural and historical values, beside of their unique beauty. In conection with the great interest, various issues revealed in these regions. We can list those as follows;

- Deterioration caused by touristic investments,
- Constructional activities in the regions having natural significance,
- Sea pollution due to bottom sweep, bailing and fish farms,
- Pollution due to ship dismantling facilities and shipyards,
- Water movement preventive physical and chemical intervention,
- Excessive, out-of-season and destructive hunting,
- Any filling and digging activities,
- Deterioration of natural beauty due to erosion and accumulations, and uncontrolled structuring,
- Technical and social infrastructure deficiencies in the activities held in coastal areas etc.

"Coasts are used for purposes of settling, trade, industry, resource, tourism, recreation, waste disposal, food, etc. However, characteristics of coastal regions have been deteriorating and treads for natural balance have been revealed. Biological, hydrobiological, ecological, climatic and physiological features are affected. Importance of the coastal areas for a country can be identified initially by the central and local administrations and also by the approach of current and potential users. While the coastal areas are considered as economical development for the central and loca administrations, generally the main aim is to obtain benefit in a short time of period. In consequence of such an approach, deterioration of the coastal areas in a short while is obvious" (Kibaro lu et al., 2009).

In order to develop an efficient coastal management in Turkey, common approach in the administration should be established by giving responsibilities and duties to local institutions and organizations, universities, regional structures and non governmental organisations. As various coastal uses require studies from different disciplines, various opinions would lead helpful discussion of potential issues, for efficient use and protection of resources. Sustainable coastal area management can only be achieved by active participation of local people and institutions. This process is considerably dynamic (Akyarlı, 2002).

### 2.8 Coastal Policy of the European Union

The coastal areas which are under effect of environmental problems have become one of the issues that are being dealt in EU countries. The European Union has carried our studies and researches for taking specific measures devoted to the coastal areas. Moreover, in the EU countries there are many aspects which are dealt together; natural and cultural inheritancei tourism, pollution and sea safety, fisheries, environmenti natural, agricultural and touristic places, energy and industry. On these subjects, the EU has achieved to maintain a common practice. It is also important to share information and recommendations between the countries, in order to reach good practice on protection of the coastal areas.

The European Union has not recently carried out any legal activity specifically related to the protection of coastal areas. However, rules in the other legislations shall also apply for the coastal areas. We can list the relevant legislation as follows; environmental impact evaluation, accessing information on neighbourhood problems, quality of drinkable and tap water, potential risk factors for animal and public health, marine habitat, treatment of waste water, purification of pollution, pollution in streams and lakes, environmental protection, poultry animals, preservation of species habitats. Nowadays, the European Union is making amendments in the regulations related to coastal and marine areas. Main principles of policies on coastal regions in the EU countries are accessible vie environmental action programmes which can be considered as Constitution of the EU environmental policies.

## 2.9 Integrated and Combined Coastal Areas Management

Integrated coast management approach has been introduced, in United Nations Environment and Development Conference held in Rio, Brazil in 1992, as a tool for development and sustainability of coasts. The only difference of integrated coastal management is its scope. Previously "coastal area management" was common, however nowadays "coastal zone management" hasbecame more common expression. So recently, integrated coastal management is the most popular expression among the others. Issues related to the coastal areas are handled individually on coastal area management studies. Various problems are also raised due to presence of more than one competent entity depending on legal and administrative gaps, conflicts between the relevant authorities,

different educational background of departments' personnel or lack of information exchange between the authorities.

Sea and coastal areas should be taken under protection for two reasons. First, these areas are main elements for the continuation of living on earth. Secondly, these areas bear various opportunities in maintaining continuous and balanced development. In this approach, as it was stated in the United Nations Marine Law Agreement, coutries with coasts have all rights and responsibilities for protection and sustainable use of these areas. Abovementioned countries shall establish an integrated approach towards conservation of coastal areas and the sea in ters of regional, national and local administrative levels and take measures depending on the current and potential environmental issues.

Until today, measures related to protection of sea and coastal resources, taken by states at national, regional or local levels, their efforts have not maintained fully continuous and consistent development yet. However, applied pressure and deformation of natural qualities are gradually in increase. So that, countries with coasts should find methods for benefiting resources, having an approach of considering their coastal areas and marine habitat as whole. This integrated approach aims to ensure continuity of decision making and implementation, take advantage of natural resources at a balanced level and to have a preventive system instead of reparative.

Countries which have coastal areas may establish boards or institutions that would have duty of inspecting functions on policy making at local or national level, maintaining coordination among the studies for potection and development of the relevant areas, and also evaluating taken decisions in integrity. If necessary, external experts from universities, private institutions, voluntary organisations, local communities and enterprises that taking benefits of natural resources in the coastal areas may be involved in the boards and institutions mentioned above. Plans and programmes shall be prepared for continuous and balanced progressing in integrated management of coastal areas and marine habitat. Regions which are under risk, started to lose its natural quality and deteriorated should be identified and data about these regions should be collected.

Environmental impact control and regular monitoring of activities should be ensured. After approving plans, authorities should carry out monitoring for preventing deformation of the environment due to human factors or rise of sea level or desposal of harmful wastes to the

sea. We should pay attention to ensure protection of endangered life processes. Sectors which have impact on the environments such as, residential places, agriculture, tourism, fisheries, harbours and industry should be managed with integral approach instead of considering them one by one. Infrastructal services should be carried out in coordination with these sectors. Authorities should give importance to trainings and awareness raising campaings, targetting local people, on coastal areas and marine habitats. Opportunities on producing alternative ideas should be taken in order to prevent instability and pressure on environment in those regions. For every activity which have potential effect on the coastal areas, studies shall be carried out to produce technologies that would not have damage on the environment.

Governments which have coastal areas should take measures, with support of international organisations, for maintaining biological species and protection of habitats in the sea. For this reason, following activities should be respected; observation of biological species in the sea, inspection, identification of current situation of endangered species and their habitats, development of protection areas management system, scientifical studies to support measures, announcement of study results. Every country shall also ensure improvement on data sources regarding coastal areas and marine habitat; development of communal and economical indications; regular environmental evaluation; techniques for benefiting from natural resources and activities; exchange of information and data with other countries; access of NGOs to the relevant data. Study results would be more helpful and efficient if international cooperation is maintained, especially for the developing countries. Countries should act together for identifying national combined coastal management principles and organise a global conference for sharing experiences. Regional, sub-regional or international organizations which have global qualifications should support efforts of countries with coastal areas, especially developing ones.

Rio Conference may be considered as critical point for a change in the United Nations (UN) studies. One of the documents examined in detail at the conference was Agende 21, Section 17. We can say that the approach in the relevant section of the document has great effect on the measures planned to be taken. In that document, it is clearly stated that sectoralspproach for the coastal areas has not been helpful and sufficient for the management of interrelated elements in the field. So, the new proposal is to have combined management of coastal areas and marine habitats. We can observe that the countries using

sectoral approach could not reach a strong solution until today. Abovementioned sectors have been ignoring the acceptable measures and their real effects on the environment. Yet, it is now clear that the sectoral approach is not sufficient and efficient for complex coastal area management system. In other words, there is a direct connection between the economical benefits and protection of natural habitats. For this reason, the coastal areas should be handled together with its all components and also policies should be identified accordingly. Solution proposals focusing on sectors can also solve problems temporarily. It is vital to have a wider approach, including environmental, communal and economical factors. Combined management of coastal areas can be considered as an approach which would create solution opportunity for continuous and stable development.

## 2.10 Objectives of Integrated Coastal Area Management

Integrated Coastal Area Management aims institutional structuring of administrations, sectors and community which have different interest, but act towards the same objective in order to achieve sustainable ecological development by gathering casuality and interactions between different actions and by considering demands on natural resources in the coastal areas. Integrated Coastal Management components are summarised in the following part.

Copper mine in Lefke region has established in 1913 and operated until 1974. It has contributed in the countries" economy however, it caused an increase in cancer patients as a long term effect. Burried waste may continue to poison underground resources for long years. Integrated coastal management approach would be helpful for our country.



Figure 2.6: Copper Mine Region in Lefke

As a result of definitions and objectives explained above, Intergated Coastal Area Management is comprised of various elements. Main titles are;

- Natural resource management
- Environmental management
- Spatial dimension, planning and management of coastal areas including fitting and infrastructure plans(Atik, 2011)
- Economical dimension
- Communal and cultural dimension
- Environmental dimension

We can consider abovementioned aspects in order to maintain integrity in combined coastal management.

### **CHAPTER 3**

#### LOCAL ADMINISTRATIONS AND SEA TRANSPORTATION

## 3.1 Maritime Transportation in Turkey

Most of the ships going around our shores were owned by foreigners during Ottoman Period. So that, shipping trade was run by the foreign ship owners. As the foreigners were holding stream vessels and carrying out trade activities, Ottomans were trapped in period of regression. Decline of the Ottoman Empire speeded up during that period. Nevertheless, Aegean Sea has been a popular destination for the ships. Europeans have made coinvestments and continued to be an arbiter in shipping trade, as a result of developments in industry. This big development in trade caused them to look for a country to market their products and created a sector in search of cheap food supply. Most significant development in the period of regression for Ottomans was warships Europe. While Ottomans were busy modernising galleon ships, Europeans has opened the era of stream vessels. Those vessels contributed for the development of trade and facilitated transportation to far harbours. They dominated the sea transportation until the end of Ottoman period. The developments in the Europe had not strengthened Ottomans, but only improved the harbours where trade activities were carried out. Ottomans could not get benefits of the developments. Barbaros Hayrettin Pasha's quote summarised the situation, One who dominates the sea will dominate the world. Republic of Turkey's founder Mustafa Kemal Atatürk stated that;

Turkey which has the best geographical state and surrounded by the sea from three sides is able to introduce competent merchants to the society with its industry, trade and sports. We should take advantage of this and consider sea transportation as the ideal of Turkish nation.



**Figure 3.1:** Passenger ship serving at city lines in the old Istanbul

By "Law on Coastwise Shipping and Perform Trade at Harbours and Maritime Territory" numbered as 815 in 19 April 1926, right of cabotage was given to Turkish citizens and the ships carrying Turkish flag. Treaty of Lousanne, Trade Agreement introduced equality for foreign and Turkish ships, and also gave right of cabotage journey, fishing and harbour services to contracting parties carrying their national flags. Law on Cabotage adopted by performing that right. Use of harbour services, carrying passengers, and towings, pilotage (guidance) along Turkish shoreline and between Turkish harbours could only be carried out by the ships holding Turkish flags. Law on Cabotage was adopted on 1 July 1926 and the date announced as Cabotage Holiday.

After foundation of Turkish Republic, economical growth in Istanbul and Izmir revealed the need of steamboats as the small boats could not meet the needs of public transportation. Municipalism in Turkey started in the period of Ottomans in 1854, however there were no articles related to sea transportation or public transportation in the municipal agreements. During that period, municipality was considered as an administrative organisation that provides local services and meets the daily needs of the city. Priorly, public transportation in Istanbul was controlled by the municipality by a specific law. After foundation of the Republic, there were very few people working in sea trasportation sector. Since it was post-war period, naval shipyards had taken steps forward and had massive shipyards having capacity of constructing warships and submarines.

In 1945's, private sector was holding steam vessels that are far from the technology. In fact, while Turkey was experiencing difficult days, neighbour Greece showed a rapid development since they had previous experiences in the field. Greece has gone one step beyond of Turkey after purchasing warships from America. This development has not only been in terms of ships, but also at maritime trainings in general. Although the country is surrounded by the sea from three sides, Turkey has missed many good opportunities due to lack of qualified personnel and insufficient capacity of private sector. Harbour and Maritime Affairs Department, City lines enterprises, State Railways and Harbours Administration Department were established under the Ministry of Public Affairs. Growth in the private sector during 1945 caused an increase in capacity of the harbours, so that modernisation of maritime sector in general. Capacity of these investments has been increasing until today. On the other hand, regarding authorities of the municipalities, it was experienced that the municipal authorities were given competences for carrying out

inspections in accordance with the contracts signed by the maritime enterprises. While the steps were being taken towards independent income of the municipalities, the central government has handed over their income to municipalities, gained from the companies established to provide public services in towns and cities(Ozturk, 2010).

However, giving authorities to municipalities on sea transportation or inspection during Republic period was not found appropriate since they did not have technical capacity. The central government was trying to hold all the authorities among it. After 1970s, some duties and authorities started to be given to the local administrations due to developments in industry and technology. In 2004, Law on Municipality Authorities numbered as 3723 was adopted, and sea transportation duties and responsibilities were given to the municipalities. At the same time, the municipalities have the right to rent public transportation tools or hire service from other institutions (Official Gazette, 2005). Municipality Transportation Coordination Centers were established. However, Law on Maritime Undersecretariat was adopted, aiming to enable undersecretariat to issue permits for sea transportation. In other words, giving technical assessment authorities on sea transportation to the undersecretariat. As we can see from here, the central government has found a way to take authorities back by establishing such an undersecretariat and made municipalities passive. Moreover, city lines were handed over to a company established under Istanbul Municipality. Ownership of docks has given to municipalities.



Figure 3.2: Passenger Ship Serving at City Lines in Istanbul

After that, city lines and Istanbul sea transportation industrial activities have been carried out. City lines authority was continue to be under the municipalities. During that period, the government held management of maritime activities as a monopol and it caused system to fuction slowly and many institutions were harmed due to political pressure. Privatisation showed rapid increase in Turkey during 1980s. We can interpret privatisation as handing over production tools partially or completely to the private sector. Especially, harbours and docks, marinas and all service sectors in maritime activities have been shared with the private sector.

We can explain the governments' objective as follows;

- ncreasing efficiency of harbour services,
- Finding new financial sources for development and sustainability,
- Strengthen enterpreneurship and management capacity,
- Decreasing financial and administrative work load of the government,
- Eliminating and/or minimising political effect on harbour management and operation,
- Obtaining economical gains by increasing competition at harbours

Privatisation of harbours aims to create motivation by political objectives in order to decrease financial and administrative load in the long term while increasing economical gains from the developed and improved system (Frankel, 1992). In Turkey, we can observe an increase in capacity with privatisation and a growth in Worlds' trade volume. Privatised harbours have taken good steps, investments increased and container transportation has become at a good level. Especially in recent years, Turkey has showed an acce eration in maritime sector and found solution as a result of effective discussion. Procedures, recommendations and regulations have been prepared and adopted, with consultation to relevant institutions in maritime sector. Important steps are taken on organisational issues for more efficient future and a developed sector. Organisational structure of Ministry of Public Affairs has been changed and became Ministry of Public Affairs, Maritime and Communication. Harbour services have becamecery important in Turkey in recent years. Increasing number of harbours and quality in service helped our harbours to be prefered for sea transportation purposes (Turkey Maritime Enterprises, 2014).



Figure 3.3:IDO sea transportation

## 3.2 Maritime Transportation in the EU

Depending on the conditions vary in the EU countries, privatisation and derogation methods have been tried at the harbours. Few infrastructure services are still under the authority of public administration; harbour management is financed by the central government. Most of the sea transportation activities have been handed over to the public sector in the EU. Exceptionally, harbours in the United Kingdom have been privatised with a special status. In other countries, local administrations do not prefer to run sea transportation activities and hire harbours on long-term contracts, in other words they prefer privatisation. In the EU countries, 42% of foreign trade is carried out by sea. As most of the harbours in the world are in the Western Europe, the EU considers harbours strategically and economically.

# 3.3 Maritime Transportation in the TRNC

Sea transportation activities in the country are performed at two harbours, via ships carrying both TRNC flag and other foreign flags. Transportation affairs are held with various passenger, cargo and container ships that are registered in the country. Trade

activities at Girne tourism harbour are not laid on the local adinistrations. On the other hand, passenger and cargo transportation are held in Gazima usa harbour. While cargo activities are carried out by the ships bearing various flags, there is only one ferry used for passenger transportation and this ferry is managed by Cyprus Sea Transportation Enterprises; in which 51% share is under public authority. We can clearly see that TRNC local administrations do not perform any activity in sea transportation field.

### **CHAPTER 4**

### RESULT AND DISCUSSIONS

This study revealed an analysis better understanding of marine activities, municipalism, importance of marine environment and protection of coastal areas, local administrations and sea transportation in the TRNC, by comparing it with other countries. Marine activities in the TRNC can be reviewed under two subtitles; harbour works and sea transportation activities. It is foreseen that all the harbours in the country should be improved administratively and technically in order to be able to compete with the harbours on South. Cruise tourism has a promising future in case of a political solution, however the activities today are not sufficient due to contrys" condition. Yatch tourism is open to improvement and should be planned and run in parallel to other tourism activities. Fishery sector which creates added value is not foreseen to have an increase due to lack of far distant fishing activities. In other words, it is carried out unprofessionally. In other sea tansportation activities, individual entrepreunership became prominent; however it is far from the governments' support and trying to survive, since there are many worn ships that have flag problems. The main problem is that conditions are not improved in the country and we have a long way towards a solution.

Municipalities are the institutions which know the regional problems better than any other authority, as they are the closest governmental unit to the public. Ensuring the participation of public in the administration, improving life quality within borders of the municipality, regional public wealth, peace and welfare, meeting the local requirements in a modernised attitude are among the main duties of the municipalities. The central government should be in cooperation with the municipalities for better implementation of legislation and regulations. Especially small scaled municipalities are in need of financial support by the central government and this decreases quality of services they provide. Administrative and technical capacity in all municipalities should be increased. The structure in the current system is not sustainable. Number of municipalities will be decreased or metropolis municipalism system will be planned. In order to succeed in environmental management, local administrations should be involved in the management activities. Local or regional problems will be arising in time and start to threaten the people. For overcoming these

problems, methods applied with the EU came to the front, environmental management systems developed and environmental engineering came to agenda.

As the EU legislation has not been fully adopted in the country, the current system is not satisfactory. Non recognition and isolation of the country play important role in these problems. In summary we can say that responsibilities and obligations of the municipalities are legal, technical, administrative, economical and institutive.

Law on Environment, ordinances and regulations issued under the law ensured protection of coastal areas in the country because every citizen has right to live in safe and balanced environment. While meeting the need of generations today, we should risk the needs of the next generations. Short and long term actions should be taken for preserving environmental quality and preventing deterioration. Preparation of the national physical plan is a must while emergency actions plans will be laid down in consultation with the stakeholders. Similar to the other countries in the Mediterranean sea, historical and cultural values of the country are threatened by the pollution and urbanisation pressure. No government can overcome these problems without taking support for maintain sustainable ecosystem in the Mediterranean. Logically, all resources should be used for ensuring good conditions. There is a need of sustainable coastal management for identifying future needs by protecting natural and environmental resources at coastal areas. These coastal management systems should be used together with Geographical Information Systems. Regarding the preparation and evaluation of Environmental Impact Assessment reports, all stakeholders and NGOs should be involved in order to reduce number of political decisions. A constant pressure on the coastal areas put sustainability in a difficult position. Policies should be drawn up in cooperation with the EU countries. Integrated coastal policies were prioritised after the environment conference held in Rio, pointing out the importance of assessing impact of various activities on coastal areas not only on the shoreline but as a whole. All countries should apply integrated coastal area management in order to establish coordination when implementing decisions for better protection. Organisational structure, legal framework, communal rules, preserving national resources, compliance and most importantly ensuring participation are needed. However, I believe that taking common actions with the other countries would not be so easy due to political conditions of our country, although it is a unique island in the middle of the Mediteranean. An effective harmonisation process is strongly needed for carrying out organisational tasks

with the stakeholders. Regarding local administrations and sea transportation, we have seen a slight improvement after adoption of Cabotage Law in Turkey; however after 1945 municipalities have handed over harbours, marinas and maritime services to the private sector. Privatization has lead increase in shipping trade and also caused a parallel increase in number of harbours and quality of services. Sea transportation enterprises are handed over to the local administrations in most of the EU countries. In other countries, local administrations did not prefer to take responsibility of sea transportation and privatised those services. In the TRNC, there is no local administration which provides sea transportation services whereas the public has 51% shares of one enterprise that has one passenger ship. Other activities of passenger and cargo carriage are managed by private companies.

### **CHAPTER 5**

### CONCLUSION ANDRECOMMENDATIONS

In developed countries, there is a constant improvement in the technology. In our country, rapidly increasing population, pollution caused by inconvenient structures in coastal areas, prioritising individual interests instead of communal, methods used by the local administrations for solving environmental problems, lack of organising and insufficiency of personnel, and unfavorable conditions in improving environment policies and environmental planning have been causing the impact on the environment to increase. The most typical characteristic of environmental problems is that they reveal theirselves locally. Local administrations' responsibilities can not be underestimated in the framework of problems. Although we have improvements in complye some standards, the current condition is not satisfactory. In the way of joining to the EU, Turkey can not perform environment policies and standards independently from the EU. On the other hand, althoug the local administrations have been given some responsibilities in our country, it is obvious that we still have some deficiencies. If the problems wanted to be solved from the source, local administrations should set up integrated coastal area management systems and environmental policies. So that, sustainability of desired environmental management would reach a satisfactory level for the legitimacy in the country, time is needed.

Even if the TRNC would be recognised internationally, following agreements and setting up strategies accordingly would be the first step. In this context, EU harmonisation studies should show progress. It is very essential to agree on authority sharing by discussing legislations, regulations and ordinances with the relevant stakeholders and to establish cooperation protocol between institutions and enterprises. So that, if a common plan or project would be prepared, sustainability among the stakeholders would be much more easier. National physical plan should enter into force as soon as possible and followed by long term plans and programmes, comparing socio-economical, ecological and cultural differences between the regions. Sustainable objectives should be identified in consultation with relevant institutions. While discussing local administrations, we should put legitimacy principle to the front. Decentralisation may facilitate to determine source of the problems and find quick solutions. As we are waiting for a development in tourism sector, any

incentive given for this purpose should not pose risks for cultural heritages and cause deterioration of the environment. There is a negative opinion from the public about the incentives given for the development of the sector until today. While implementing incentives on the shorelines, the whole coastal area should not be affected. In order to implement a safe project on the shoreline, maintain ecological balance, preserve natural and cultural heritage, gaps in the legislations should be filled and the authority conflict should be solved. Plans for sustainable progress may be drawn up in coordination, especially with the NGOs. First of all, an emergency plan would be drawn up and distribution of tasks among the relevant institutions would be decided in case of an environmental disaster. We should bear in mind that our country will be obliged to implement necessary rules in the near future, as the harmonisation to the EU legislation studies continue.

**Table 5.1:** Policy areas identified for local administrations

Items	Solution Proposals		
1- Policy Areas Identified for Local Administrations	Arrangements for the Improvement of Administrative Capacity, Provision of Efficiency and Enhancement of Qualified Labour Force, Development of Institutional Capacity and Institutionalism for the Effectiveness of Local Administrations		
2-Capacity Building and Service Provision Methods in Local Administrations	To ensure effectiveness in local services, establishment of quality and quantity balance on quality basis, Technical assistance to local administrations		
3-Democracy, Representation, Participation and Transparency in Local Administrations	To ensure effective participation of citizens in administration, Enhancement of Democratic Representation of Local Administration Organs and Improvement of Democracy Awareness		
4- Relations between Central Administration and Local Administrations	Review of duties, powers, responsibilities and relationship forms, Main principles as democratization, rule of law and public interest. Protection of public interest and benefit of society during decision-making process in local administrations.		
5-Inspection and Accountability	Effectiveness of internal audit, To establish discretionary inspection mechanisms		
6-Environment Management in Local Administrations	Dissemination of "Local Environment Action Plan" practices and Effective Implementation and Inspection of Environmental Impact Assessment process, Performance of Legal and Institutional Restructuring for Drafting Local Environment Action Plans		

We should prepare ourselves for permanent solutions reached by the organizations or institutions which would carry out the studies in a framework, aiming to achieve sustainable management in the coastal areas, environmental and local administration issues. We should not forget that the impact on environment lead natural disasters, which consequently harm the human beings. While trying to save today, we should not risk our future.

**Tablo 5.2:** Integrated management of coastal areas (adopted from Wide and Vrees (1999))

Organizational Structure	Legal Frame work	Traditions and Social Rules	Protection/Improveme nt of Resources	Integration, Compliance, Participation
Identification of Problems	Research		Training and Awareness Raising Program Research, Public Participation	
Planning	Data Collection		Economic Data Bases, Population and Economy Statistics	
	Policy Development		System Analysis (Natural, Social, Economic/Administrative) Multi-disciplinary Cooperation	
	Decision-Making		Arrangements Assisting Decision Making Cost/Benefit Ecological/Economic Assessment	
Implementation	ementation Enforcement of Plan		Regulatory and Non-Regulatory Activities Financial Tools, Leading, Guiding	
	Implementation and		Implementation Process	
	Sustainability of Plan		Planning Process, Taking Measures for Natural and Unnatural Disasters	
	Monitoring		Aim based monitoring tables, Research and Analysis, Remote Sensing and Geographical Information Systems	
Assessment	Assessment and Review		Assessment and Review	

Due to the political reasons and power conflicts between local administrations and central government; decentralization, financial autonomy, enhancement of administrative autonomy, improvement of income generation capacity, strengthening institutionalisation in administration, public interest targeted service provision, improvement of political and local efforts on internal and external dynamics for development and growth should be ensured among the local administrations in TRNC Since the capacity of maritime sector is small in terms of developed policies and solution proposals, the peace process should reach an accomplishment in TRNC as soon as possible so that all sectors (public-private) can grow accordingly. The management of environment and coasts should be considered together.

### **REFERENCES**

- Adler, J. and Kay, R. (1999). Coastal Planning and Management. New York: Routeledge.
- Akyarlı, A. (2002).

  Türkiyekıyımühendisli iara tırmalarıkıyımühendisli i.*TürkiyeMühendislikHaberleri*,

  420-422. Retrieved September 16, 2014 from

  www.imo.org.tr/resimler/dosya\_ekler/13fbecf46fabf2f\_ek.pdf?dergi
- Atik, A.S. (2011). Integrated coastal zone management and planning Some case studies in Turkey. 7. KıyıMühendisli iSempozyumu, 481-493. Retrieved January 18, 2015 from <a href="http://www.imo.org.tr/resimler/ekutuphane/pdf/16826\_45\_56.pdf">http://www.imo.org.tr/resimler/ekutuphane/pdf/16826\_45\_56.pdf</a>
- Atun, A. (1998). DünyadakiKolayBayrakÜcretlerive KKTC.Ula tırmaveBayındırlıkBakanlı 1 1.Denizcilik urası, Lefko a, Retrieved November22, 2014 from<a href="http://academicjournal.info/pdf/03.09.98-Kolay.pdf">http://academicjournal.info/pdf/03.09.98-Kolay.pdf</a>
- Badalamenti, F., Ramos, A.A., Voultsiadou, E., Sánchez Lizaso, J.L., D'anna, G., Pipitone, C., Mas, J.,RuizFernández, J.A., Whitmarsh, D. Y and Riggio, S. (2000). Cultural and socio-economic impacts of Mediterranean marine protected areas. *Environmental Conservation*, 27(2), 110-125.
- Baykal, T. (2010). The local organization of the environmental management system in Turkey. *Mustafa Kemal University Journal of Social Sciences Institute*, 7(13), 476-492.
- Bozkırlı, S. (2006). Kuzey Kıbrıs Cumhuriyeti Örne inde Bütüncül Kıyı Yönetimi Yakla ımının rdelenmesi. Yüksek Lisans Tezi, Ankara Üniversitesi, Fen Bilimleri Enstitüsü, Ankara.
- Bozkurt, Y. (2010).
  AvrupaBirli i'neUyumSürecindeTürkiye'ninÇevrePolitikalarınınDönü ümü. Bursa:
  EkinYayınları.
- Çatalba, Ö. (2010). KuzeyKıbrıs TC ÜlkeRaporu.Retrieved January 18, 2015 fromwww.een.kso.org.tr/up/dene/Kuzey\_Kibris\_ulke\_raporu\_2011.pdf
- Çiçek, G. (2013). BalıkçılıkveDenizselÜrünleriEkonomisi Yurt
  Dı 1E itimSunusu.TürkiyeCumhuriyetiGıdaTarımveHayvancılıkBakanlı 1.Retrieved
  January 12, 2015

from http://www.tarim.gov.tr/ABDGM/Belgeler/%C4%B0DAR%C4%B0% 20%C4%B0%C5%9ELER/temmuz/2.pdf

- Duru, B. (2003). KıyıPolitikası. Ankara: MülkiyelilerBirli iVakfı.
- Frankel, E.G. (1992). Hierarchical logic in shipping policy and decision making. *Maritime Policy and Management*, 19 (3), 211–22.
- Gedikli, B. (2013). KıyıyıYa amak, KıyıyıPlanlamak. 7. KıyıMühendisli iSempozyumu,BildiriKitabı, 23-33. Retrieved March 3, 2015 fromhttp://www.imo.org.tr/resimler/ekutuphane/pdf/ 16781\_24\_16.pdf
- Geray, C. (1998). Yerelyönetimlerveçevre. Ça da yerelyönetimlerdergisi, 7(3), 57-64.
- Görer, N. and Duru, B. (2001).Türkiye'deKıyıYönetimiUygulamaları.Özhan, E. &Yüksel Y. (Ed.), Türkiye'ninKıyıveDenizAlanları III. UlusalKonferansıBildirilerKitabı, KıyıAlanlarıYönetimiTürkiyeMilliKomitesi, Ankara:ODTÜ. Retrieved January 12, 2015 from<a href="http://www.academia.edu/3390643/Nilg%C3%BCn\_G%C3%B6rer\_B%C3%BClent\_Duru\_T%C3%BCrkiyede\_K%C4%B1y%C4%B1\_Y%C3%B6netimi\_Uygulamalar%C4%B1">http://www.academia.edu/3390643/Nilg%C3%BCn\_G%C3%B6rer\_B%C3%BClent\_Duru\_T%C3%BCrkiyede\_K%C4%B1y%C4%B1\_Y%C3%B6netimi\_Uygulamalar%C4%B1</a>
- Güler, Ç. andÇobano lu, Z.(1994).ÇevreselEtkiDe erlendirmesi. ÇevreSa lı ıTemelKaynakDizisi No:36, Ankara: TCSa lıkBakanlı ı.Retrieved March 3, 2015 from<a href="http://sbu.saglik.gov.tr/Ekutuphane/kitaplar/css36.pdf">http://sbu.saglik.gov.tr/Ekutuphane/kitaplar/css36.pdf</a>
- Ho sucu, H. et al. (1998). KuzeyKıbrısTürkCumhuriyetiKıyıBalıkçılı ınınYönetimiProjesi.Retrieved February 20, 2015 from<a href="http://webcache.googleusercontent.com/search?q=cache:5OqJ16lqIYkJ:www.ilkyaz.eu/doc/ilkyaz\_1998\_3.pdf+&cd=1&hl=tr&ct=clnk&gl=tr">http://webcache.googleusercontent.com/search?q=cache:5OqJ16lqIYkJ:www.ilkyaz.eu/doc/ilkyaz\_1998\_3.pdf+&cd=1&hl=tr&ct=clnk&gl=tr</a>
- ISO (2015).ISO 14001.Retrieved March 30, 2015 from <a href="http://www.standartkalite.com/iso14001\_nedir.htm">http://www.standartkalite.com/iso14001\_nedir.htm</a>
- Kele , R. (1999). KuzeyKıbrısTürkCumhuriyeti'ndebelediyelerveça da belediyecilik.*Ça da yerelyön etimler*,8 (1), 115-125.Retrieved January 1, 2015

- from <a href="http://www.todaie.edu.tr/resimler/ekler/193e4c0779d13ab\_ek.pdf?dergi=Cagdas">http://www.todaie.edu.tr/resimler/ekler/193e4c0779d13ab\_ek.pdf?dergi=Cagdas</a> %20Yerel%20Yonetimler%20Dergisi
- Kele, R., Hamamcı, C. and Çoban, A. (2002).Çevrebilim, 4.Baskı, Ankara: mgeKitapevi.
- Kele, R., Hamamcı, C. and Çoban, A. (2009). Çevre Politikası. Ankara: mge Kitapevi.
- Kibaro lu, D. i man, A. and SesliF.A. (2009).KıyıBilgiSistemindeVerilerveVeriKaynakları.TMMOB
  HaritaveKadastroMühendisleriOdası, Co rafiBilgiSistemleriKongresi, zmir:TepekuleKongreveSergiMerkezi.
- Kızılbo a, R.and Batal, S. (2012). The roles and importance of local governments in the solution of environmental problems in Turkey. *Mustafa Kemal University Journal of Social Sciences Institute*, 9 (20), 191-212. Retrieved March 10, 2015 from http://sbed.mku.edu.tr/article/viewFile/1038000353/1038000184
- KKTC çi leriveYerelYönetimlerBakanlı ı ehirPlanlamaDairesi
  (2013).ÜlkeselFizikPlanı.Retrieved March 10, 2015
  fromhttp://www.ulkeselfizikplan.spd.gov.ct.tr/
- KKTC Mahkemeleri (2015).KuzeyKıbrısTürkCumhuriyetiÇevreyasası.Retrieved October 18, 2014 from<a href="http://www.mahkemeler.net/cgi-bin/default.aspx">http://www.mahkemeler.net/cgi-bin/default.aspx</a>
- Official Gazette (2005).Büyük ehirBelediyesiKanunu, Sayı: 25531. Retrieved February 20, 2015 fromhttp://www.resmigazete.gov.tr/eskiler/2004/07/20040723.htm
- Ornat, A.L. (2006).

  AkdenizdeDenizveKıyıKorumaAlanları'nınOlu turulmasıveYönetilmesi için Rehber.

  Retrieved April 17, 2015 from<a href="http://dcm.dka.gov.tr/App\_Upload/1.AKDENIZ\_DKA\_OLUSTURULMASI\_VE\_YONETILMESI\_ICIN\_REH\_BER.pdf">http://dcm.dka.gov.tr/App\_Upload/1.AKDENIZ\_DKA\_OLUSTURULMASI\_VE\_YONETILMESI\_ICIN\_REH\_BER.pdf</a>
- Ökmen, M. and Demir, F. (2010). Participatory environmental impact assessment in Turkey and the case of Usak, Dumlupınar University. *Journal of Social Sciences*, 27, 265-276. Retrieved March 30, 2015 from <a href="http://www.mustafaokmen.org/images/stories/">http://www.mustafaokmen.org/images/stories/</a> YAYINLAR/KENTLESME-CEVRE/-katilimci-cevresel-etki.pdf

- Öztürk, A. . (2011). Municipalities and sea transportation: Transfer of Istanbul city lines to municipality. *Ça da YerelYönetimler*, 20 (4), 1-23.
- Özturk, A. (2010). Osmanlı'danCumhuriyet'e mtiyazUsuluyleYürütülen stanbul BelediyeHizmetleri(Yap let DevretUygulaması / 1852-1964). stanbul: Kültür.
- Reel, Y. and Terzi, N. (2008). World marine markets and port privatization. *Marmara University IIBF Dergisi*, 15 (2),119-139. Retrieved April 5, 2015 from <a href="http://dosya.marmara.edu.tr/ikf/6-DUNYA-DENIZCILIK-SEKTORU-VE-OZELLESTIRME-UYGULAMALARI.pdf">http://dosya.marmara.edu.tr/ikf/6-DUNYA-DENIZCILIK-SEKTORU-VE-OZELLESTIRME-UYGULAMALARI.pdf</a>
- Serdaro lu, N. and Yıldırım, H.H. (2011).Kıyımevzuatındakamuyararıkavramınınde erlendirilmesi.*BilimveTeknolojiDe rgisi*,26 (2), 38-54. Retrieved June 12, 2015 from <a href="http://sujest.selcuk.edu.tr/sumbtd/article/view/192">http://sujest.selcuk.edu.tr/sumbtd/article/view/192</a>
- Sesli, F.A., Aydıno lu, A.Ç. and Akyol, N. (1997).Coastal Zone Management.Türkiye'ninKıyıveDenizAlanlarıUlusalKonferansBildirilerKitabı.

  Retrieved January 10, 2015 from<a href="mailto:http://akademi.itu.edu.tr/aaydinoglu/DosyaGetir/64529/Sesli\_kurultay9.pdf">http://akademi.itu.edu.tr/aaydinoglu/DosyaGetir/64529/Sesli\_kurultay9.pdf</a>
  - engül, M. (1999). YerelDüzeydeÇevreveBelediyeler. *Ça da YerelYönetimler*, 8 (3), 91-102. Retrieved April 5, 2015 from <a href="http://www.todaie.edu.tr/resimler/ekler/37f97f592">http://www.todaie.edu.tr/resimler/ekler/37f97f592</a> c25eb3\_ek.pdf?dergi=Cagdas%20Yerel%20Yonetimler%20Dergisi
- Tamçelik, S. (2013).KuzeyKıbrısGelece ininPlanlanması.EkoAvrasya.Retrieved March 11, 2015 from <a href="http://ekoavrasya.net/images/upload/attachments/kitap\_kibris.pdf">http://ekoavrasya.net/images/upload/attachments/kitap\_kibris.pdf</a>
- Toprak, Z. (2003). Yenilikçi-dü ünenkentlervetoplumsalili kiler. *llerveBelediyelerDergisi*, 2,14-15.
- Turkey Maritime Enterprises (2014).2014 Sector Report.Retrieved June 12, 2015 from <a href="http://www.tdi.gov.tr/documents/tarama0001.pdf">http://www.tdi.gov.tr/documents/tarama0001.pdf</a>
- UNEP (2012).United Nations Environment Programme/MediterraneanAction Plan (UNEP/MAP). State of the Mediterranean Marine and Coastal Environment.Retrieved January 10, 2015

fromhttp://www.gebco.net/about\_us/meetings\_and\_minutes/documents/gebco\_gc\_report\_1997.pdf

Wide, J. and Vrees, L. (1999).Perspectives on Integrated Coastal Zone Management, Chapter 4.Springer: Verlag Berlin Heidelbelg.

Yıldız, A. (2008).Türkiye'detersanalerintarihivegemiin asanayisiningeli imi.*MühendisveMakin* e, 49 (578), 23-47.Retrieved February 05, 2015 from<a href="mailto:http://www.mmo.org.tr/resimler/dosya\_ekler/2eb734903575495\_ek.pdf?dergi=1">http://www.mmo.org.tr/resimler/dosya\_ekler/2eb734903575495\_ek.pdf?dergi=1</a>

Yılmaz, A., Bozkurt, Y. and Ta kın, E. (2005).Do alkaynaklarınkorunmasındaçevreyönetimininetkinli i.*DPÜ*SosyalBilimlerEnstitüsüDergisi, 13, 15-30.