

# **Environmental Impacts of Coastal Tourism on Small Island States: The Case of North Cyprus**

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## **ABSTRACT**

Small islands have remained fragile and very vulnerable to decisions resulting from external influences and the local institutional drive for economic development by harnessing the coastal resource for coastal tourism. As a result of this dependence on Sea, Sand and Sun, coastal tourism is often not defined before it gets developed as a tourism function; as such a misunderstanding and wrong definition leads to development of supporting activities which may not necessarily be compatible with that particular tourism function.

With these uninformed/misguided development activities, mostly by construction of hotels and second homes as well as roads next to the sea, two specific reactions have been triggered in North Cyprus. First is influence on the local coastal ecosystem where the coastal landforms, flora and fauna, being the very essence of coastal tourism are being transformed or destroyed. The second reaction is a gradual shift in the tourism profile of the island which is tending towards casino tourism rather than the traditional small islands' profile of coastal tourism.

Nine propositions emerged with a model developed to show this chain of reactions. The influence of coastal tourism on coastal change and shift in tourism profile is seen to be mediated by coastal tourism activities where this can be moderated by planning and coastal zone management. Premised on a qualitative research approach, these findings were able to satisfy the aim of this research which was to evaluate coastal tourism, its supporting activities in a small island state and the ensuing environmental impacts. This study is significant by adopting the environment as an

indicator of impacts, and it also bridges the research gap on environmental impacts of coastal tourism in North Cyprus.

A moratorium on constructions within 200-300 proximity of the coast was suggested, to be followed by coastal zone study and definition in order to define a vision for the island and develop a planning framework with inputs from all stakeholders.

**Keywords:** Coastal tourism, coastal change, coastline degradation, environmental impacts, tourism profile.

## OZ

Küçük adalar, dışsal etkilerle alınan kararlar sonucunda hep etkileşime açık kalmışlardır. Yerel kurumsal güç kıyı kaynaklarını, kıyı turizmini geliştirerek ekonomik gelişmeyi hedeflemiştir. Bundan dolayı, deniz, kum ve güneşe bağımlılık, kıyı turizminin fonksiyonunu gelişme olmadan tanımlamamaktadır. Böyle yanlış anlama ve hatalı tanımlama turizm fonksiyonuna uymayan destekleyici aktivitelerin gelişmesine neden olmuştur.

Yanlış gelişme aktiviteleri, özellikle otel inşaatları ve ikinci konut, denize yakın yolların inşası, iki özel tepkiyi Kuzey Kıbrıs'ta tetiklemiştir. Birincisi; kıyı eko sistemi içinde, kıyı turizminin özü olan kıyı arazisi, bitki ve hayvan varlıklarını değişmiş veya tahrip edilmiştir. İkinci tepki ise, adanın turizm profili yavaş yavaş adalarda geleneksel kıyı turizmi yerine gazino turizmine kaymıştır.

Bu tepkiler zincirini göstermek için dokuz ilgeç önerilmektedir. Kıyı turizminin, kıylardaki değişimine etkileri ve turizm profilinde değişim, kıyı turizmi aktiviteleri ve bunlar planlama ve kıyların yönetimi ile ilişkilendirilmiştir. Nicel araştırma yöntemi sonucu bulgular araştırmanın kıyı turizmini değerlendirmek, küçük adalarda destekleyici aktiviteler ve çevresel etkiler saptamak olan amacına ulaşmıştır. Bu çalışma önemlidir çünkü çevre, etkilerin göstergesi olarak kabul edilmiştir ve kıyı turizminin Kuzey Kıbrıs'ta çevreye etkileri alanında boşluğu dolduracak bir köprüdür. Ada için bir vizyon ve paydaşların görüşleri alınarak bir planlama çerçevesi geliştirmek amacı ile denizin kıyı şeridinden 200-300 metre uzağına kadar

yapılaşma olmaması için moratoryum ve ardından kıyı bölgesi ve tanımı çalışması önerilmiştir.

**Anahtar kelimeler:** kıyı turizmi, kıyı değişimi, kıyı şeridinin bozulması, çevresel etkiler, turizm profili.

To God be all the glory for faithful is he who started it to accomplish all he has promised.

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# **Chapter 1**

## **INTRODUCTION**

### **1.1 Study Background**

“Tourism is an illusion which destroys the very places being visited. This is because geographical space is limited” -Urry and Larson, 2011.

“Nature provides a site in which tourists indulge their mastery over the earth”. - Bell and Lyal, 2002.

Tourism has continued to prosper all around the world enhanced by modernism and postmodernism as well as hyper growth in the global world.

Locations with large coastlines have mostly benefited from the tourism industry and form one of the principal drivers of tourism and tourist attraction (WWF). Predominant among such destinations are large island states of Australia, Hawaii Japan, etc. and Small Island States (SIDS) of the Pacific, Caribbean and Mediterranean (Orams, 1999; Hall, 2001; Jennings, 2004; Ko, 2005).

Small island states have predominantly thrived in response to the global increase in tourism as tourist destinations, with Mediterranean islands contributing over one third of the global tourist arrival and receipts. The tourism here is generally of coastal nature, their environment being defined by the large coastline in relation to landmass compared with other islands (Briguglio and Briguglio, 2000).

These destinations have attracted tourists because of the abundance of coastline, their marine life and activities associated with these features. Most of the micro-island states have a high dependence on the sale of the four's' of tourism i.e. sun, sea, sand and sex (Hall, 2001) as well as the climate; which is the attraction most especially for coastal/marine tourism (Harrison, 2004; Urry and Larson 2011; Wallis et al, 2011).

## **1.2 Theoretical Framework**

Environmental impacts are responses of individual, population or communities of components of the ecosystem to different kind of activities conducted within the system. The environment can be surmised as a network of processes functioning in tandem to generate influences which in turn might be consequential for the existence of the whole system (Mason, 2012) as expounded in environmentalism.

NAIADE (Novel Approach to Imprecise Assessment and Decision Environments) method integrates multidimensional approach to evaluation of environmental impacts especially when dealing with multiple and divergent views resulting from conflicting perceived values and judgement of social actors (Oikonomou et al, 2011).

Human desires influence environmental impacts (Stern, 2004) which emanate from several human activities geared by a dependence on environmental resources (Cashmore et al., 2004). Oikonomou et al. (2011) support this dependence, suggesting “human induced processes may allow, facilitate or distort their provision”.

Human activities have emerged over the years as a major contributor to coastal degradation among several environmental impacts, and Farrugia (2008) in her study

of coastal erosion along northern Malta suggests that “the most serious threat .....arise from recreational, tourist and agricultural activities”.

Tourism is one of the major disruptor of the marine ecosystem (Peter Saenger, 1990; Zhong et al 2011, Buckley, 2012) and several physical environmental global impacts have been associated with tourism, such as, environmental degradation, coastal debris, pollution, resource depletion, land consumption (WTO).

### **1.3 Statement of Problem**

Small islands have been identified as having fragile ecosystem and are vulnerable to outside influences, heightened by human activities (Medina-Munoz and Garcia-Falcon, 1998; UNEP) mostly tourism (Kuran and Akan, 2005; WTO; WWF).

Creel (2003) in her publication points out that, resources of coastal regions are being threatened by developments associated with functions such as tourism among others, where this may continue to lead to further degradation of the coastal habitat. Coastal tourism in small islands occurs mostly along the shoreline (beach), where this is considered a location extremely vulnerable to environmental impacts especially degradations which might not be immediately visible (Hall and Lew, 2009; IRF, 2006). These impacts vary from island to island due to different factors (Briguglio and Briguglio, 2000).

The need for specific studies on Mediterranean islands is considered one of paramount interest as the region has evolved over the years as a major tourist attraction and development focus with critical impact issues (UNEP). Based on these problems, this study is directed at evaluating the above listed with North Cyprus as case study, as it is suited to the underlying characteristics.

## **1.4 Significance of the Study**

Studies suggest the need to investigate coastal tourism as well as tourism activities as a whole with emphasis on the interaction between these and the environment but most especially in term of associated environmental impacts. Also, the need to carry out these studies on individual islands especially in areas where there is little or no data has been identified; having noted that Australia and Pacific islands have been the focus of most information available on tourism of island states such as those by, Buckley (2012), Davis Harrison (2004), Hall (1996; 2001), Silva and Ghilardi-Lopez (2012), Zhong et al (2011).

The relationship between environmental quality and tourism development is now a major concern to both government and citizens, where coastal degradation takes place gradually and is barely immediately noticeable.

North Cyprus was chosen as a case not only for being a small island state but also as a state with identified impacts and potential impact in the nearest future, especially with the United Nations continued effort to resolve its persistent political impasse (Ahmet Sozen, 2012) and isolation leading to more commercialisation of its tourism.

Most of the research works done on tourism of North Cyprus (a small island state) revolve around political trends (Alipour and Kilic, 2005; Altinay et al., 2002; Sozen, 2012; Yasarata et al., 2010), tourism marketing (Bicak et al., 2005), brand destination, urbanization and hotels/restaurants (Karatepe and Erdogan, 2004. Karatepe et al., 2007) as well as economic potentials and impacts of tourism of the area (Altinay et al., 2005; Bicak and Altinay, 2006; Sharpley, 2001). As shown in North Cyprus, it is more difficult to embrace the problem of coastal change and

degradation as available information is mostly fragmented (Duxbury and Dickinson, 2007). Existing literature on the relationship between tourism activities and the environment have focused on general issues (Aksugur et al., 2006; Altinay and Hussain, 2005; Alipour et al., 2007) rather than addressing specific problems of environmental impacts (Kuran and Akan, 2005) and as regards coastal activities development.

## **1.5 Research Aim**

Pursuant to the limited information on coastal tourism in North Cyprus as well as the environmental impacts that are associated with the ensuing developmental activities, most especially on the coastal environment (Jabareen, 2012), the main aim of this study was to evaluate the environmental impacts of the activities of coastal tourism function on the small island destination of North Cyprus as perceived by the people.

## **1.6 Research Questions**

To achieve the above aim, this study incorporated perceptions of residents and opinion leaders with secondary data in order to answer the following questions:

- a) As a resource function, how active is coastal tourism as perceived by people in North Cyprus?
- b) What activities do these people associate with coastal tourism?
- c) What are the environmental influence (s) and response (s) to these activities over the years; with a specific focus on the coastal land?

## **1.7 Scope of the Study**

This study covered the shores of North Cyprus and the immediate coastal environment with a focus on functions supporting coastal tourism activity that are of perceived impact on coastal land. These functions were limited for the purpose of this study to include accommodations and infrastructures. The study is based on

comparative evaluation of existing information and noticed changes in the shoreline over a period of time. This was based on perception of stakeholders on the relatedness of the changes to the coastal area where these tourism functions were of immediate focus while not ignoring the effects of climatic factors of the location.

Findings from this study showed that when coastal tourism is not well understood and appropriately defined in a destination, it will often lead to development of incompatible activities in the form of buildings and infrastructure on the coast. These activities lead to a change in the coastal area and tourism profile with its influence on the ecology and natural processes within the zone. Yet, informed establishment and application of planning via coastal zone management practice may help reduce these influences.

This study therefore, was to contribute to the literature on coastal tourism and the environment of small islands, with attention directed at coastline use and degradation from a small Mediterranean island of North Cyprus; as well as using environment as an impact indicator.

## **1.8 Research Design/Methodology**

Coccossis and Njikamp (1998) suggested a need for choice of specific type of environmental resource focus, one type of tourism activity and one activity function. Within the framework of impacts (Briguglio and Briguglio, 2000; WTO 2004; Buckley, 2011), this study was focused on degradation of the Coastline (resource), coastal tourism (activity), and accommodation and infrastructure (coastal tourism function). This was done with focus on evaluating development of buildings and accommodation as activities close to the shoreline that create environmental impacts

while supporting the coastal tourism on the destination island state of North Cyprus as perceived by local social actors against the backdrop of baseline global dimensions of environmental impacts of tourism activities.

Thus resulting in a multi-criteria approach which incorporates resource (coastal area) - tourism resource function (coastal tourism) – tourism function activity (accommodation and infrastructure) as suggested by Oikonomou et al. (2011) with a social analysis based on the inferred impacts from perception of social - opinion leaders and residents, while intersecting this with baseline data on global impacts of tourism.

## **1.9 Structure of Content**

Chapter 1 revolved around an introduction to the research, the problem statement, the significance of the study, the objectives of the study, the research questions, scope of study and introduction to the adapted research methodology. Chapter 2 centres on review of existing literature on the subject of study as well as definition of framework of concepts so as to create an understanding of the keywords to readers that are not very familiar with the subject. This is followed by Chapter 3, a section devoted to an overview of islands and presentation of relevant information on North Cyprus as a small island state and tourist destination. Next to this are Chapters 4 and 5, representing the research methodology and presentation of findings. Chapter 6 covers discussion of the findings from the research alongside data obtained through secondary sources and site visits. Finally the implications, limitations and recommendation to policy makers, industry as well as suggestion for further research are presented in Chapter 7 and Chapter 8 covers the conclusion on this study.

# **Chapter 2**

## **LITERATURE REVIEW**

### **2.1 Tourism Review**

Tourism according to WTO constitutes the single largest industry in the world and when coupled with travel has continued to evolve as the largest industry of the twenty first century, an industry which accounts for more than 9% of employment and world GDP with over 25% land use (Miller and Auyong, 1991; Jenner and Smith, 1992; Urry and Larson, 2011; Zhang et al, 2012). According to WTTC, in 2011, travel and tourism's total contribution to GDP was US\$6.34bn (9.1% of GDP) and forecasted to rise by 4.3% pa in 2022. A total of 254.9 million jobs (8.7% of employment) were created globally from the industry with an expected increase by 2.3% pa in 2022. Of these figures, leisure spending accounts for 76% contribution with business spending making up 24.1%. A wide margin exists between domestic spending and foreign spending at 70.5% and 29.5% respectively.

Of the different types of tourism – coastal, education, health, marine, religious, etc. - coastal tourism has been identified as the fastest growing (Yepes and Medina, 2005) accounting for more than a third of the tourism figures. Tourism drawing from Urry and Larson (2011) may be viewed as a practice which involves “the notion of ‘departure’, of a limited breaking with established routines and practices of everyday life and allowing one’s senses to engage with a set of stimuli that contrasts with the everyday and mundane”. He further summarised

tourism as “a leisure activity” set apart from “regulated and organised work”; where with the continued dynamism of change, both have continued to be integrated as a social practice.

Glossing (2002) in his view points out that tourism acts as a driver of environmental consciousness and opens up people’s mind, helping them form an individual understanding/opinion of what the environment entails; this leads to embracing the awareness (it creates) that comes with such in what he terms “environmental consciousness”.

Studies have shown that the environment has continued to change in response to the various activities carried out by man in a bid for development, aesthetics and recreation/leisure (Gossling, 2002; Burak et al, 2011). Most of these activities have contributed immensely to man’s adaptation to the environmental factors and survival, yet, in order to continue to benefit from the features available, there is need to evaluate these activities and how they affect our immediate environment (Fraumann & Banks, 2011; Guh & Wong, 2008; Jabareen, 2012).

Recreation activities in the environment may aesthetically be mind-blowing while it lasts, but it gradually erodes the natural form of the same environment, and as seen in recent years, when and where the environment fights back there is nothing that can be done to withhold the full force of its devastating effect (UNEP - SIDs). It is now common knowledge that tourism is one of the major disruptor of the marine ecosystem even when the economy of most micro-states is heavily dependent on the returns therefrom (Peter Saenger, 1990; Coccossis and Njikamp, 1996; Orams, 1999; Johnson, 2002; Zhong et al 2011).

## **2.2 Methodological Literature**

An understanding of impacts especially as a result of various human activities is considered to be of high importance so as to ensure that the environmental resources upon which such activities are based will be available in uncompromised form for future use.

Several approaches have been adopted in previous studies related to the negative influences of tourism activities on the environment; accompanied by a considerable body of literature on global impacts.

In the literature on coastal tourism, the commonly adopted method has been use of secondary sources mostly historical data (Rutin, 2010; Layke et al, 2012; Klein and Osleeb, 2010); while studies on tourism impacts on the environment have included secondary data, questionnaire, in-depth interview as well as field surveys and observation. The aim of each study often gives a guide to the researcher to either adopt a qualitative approach with its ‘why and how’ or the quantitative approach with its ‘how often’ denominators; or a combination of both approaches as may be suitable.

In a study of environmental impacts of tourism in China, Zhong et al., (2011) surmised from their review of literature that both qualitative and quantitative approaches have often been combined in studies of tourism impacts. They further explained that qualitative methods are used mostly from the initial stage of conceptualisation through description and presentation of relationship, accounting for 64% usage. While quantitative approach is mostly pronounced in modelling and

spatial analysis. As such most studies have combined “field monitoring, questionnaire survey and/or in-depth interviews”.

In this vein, this research work is predicated on qualitative methodology in data acquisition, analysis and presentation, both in exploratory and descriptive context. Instruments for data collection included semi-structured interview adapted to opinion leaders and unstructured in-depth interviews for municipality and other respondents, allowing for coherence while also utilising data obtained from secondary sources (Maxwell, 2013; Trochim, 2010; Lancaster 2008).

## **2.3 Definition of Concepts**

### **2.3.1 Coasts and Coastal Area/Zone**

It may be said that coasts have no strict definition and cannot be defined within a narrow context as it is influenced largely by how much limit/setback is applied in the study per time (Dibajnia et al., 2012; UNESCO/IOC, 1997). The US-Canada international boundary in 2012 delineated the sea coast up to 3 nautical miles for most of its states. Hence, the coast may be defined as all the area of land bordering an expanse of ocean or sea depending on the delimiting setback being adopted (Goodhead and Johnson, 1996; Orams, 1999).

Furthermore, Urry and Larson (2011) refers to coasts as that area of land within the perimeters of the sea/ocean. A geographical appreciation explains that *coast* describes the space occupied by the transition between land and sea (Dibajnia et al., 2012).

The applied geographical context further explains the coastal system as combination of natural processes and human activities (Fletcher and Smith, 2007); where this underpins the various definitions which have evolved in defining the coastal zone.

Figure 2.1 helps to give an understanding of coast and coastal zone as adopted in this study.

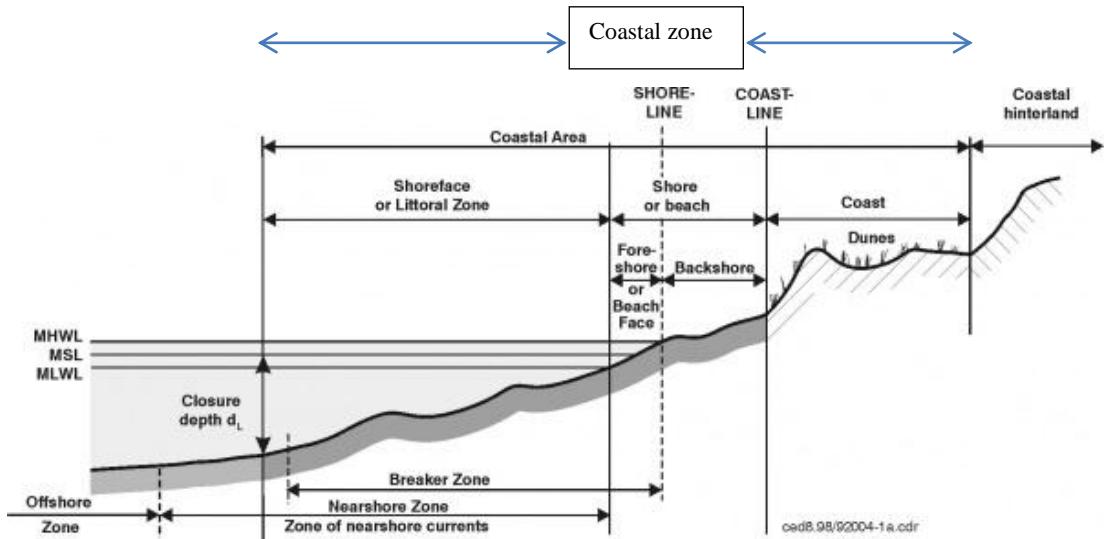


Figure 2.1: Definition of coast and coastal zone, adjusted based on provision from Shore Protection manual, 1984

The Mediterranean ICZM Protocol defines coastal zone to mean

the geomorphologic area either side of the seashore in which the interaction between the marine and land parts occurs in the form of complex ecological and resource systems made up of biotic and abiotic components coexisting and interacting with human communities and relevant socio-economic activities

Coastal zone therefore as shown in fig 2.1 may be described as an integration of the landforms, ecology and atmospheric cum marine processes with the human induced processes of development.

UNEP points out that this area is often characterised by coastal landforms and/or structures such as cays, bays, alcoves, *sand and shingle beaches*, etc., which

determine the shelter and exposure of such site and the area of water available for easy accessibility characterised by a low waterline.

As beaches are “an accumulation of sediments deposited by sea waves and currents in the area of the sea closest to land, typically sand and pebbles” (Goodhead and Johnson, 1996), it is of paramount importance that a balance be maintained in this process either through non disturbance (which is farfetched) or proper management so as to ensure that the coastline does not recede into the sea. Coastal structures often determine bed type, water depths, currents and turbulence which can either facilitate or constrain activities around and within the coastal peripheral and these influence activities that occur preferably to the leeward side.

One such activity which has received immeasurable attention and which has continued to grow in benefit and concern is developments and infrastructure associated with leisure and recreation or what is termed tourism and its functions. This is so, because coastal zones are the target of one third of world tourism, especially in the Mediterranean, mostly for its beach activities (WTO, 2004).

### **2.3.2 Coastal Tourism vs. Marine Tourism**

Coastal and marine tourism are prominent features that constitute a large part of tourism as a whole. While this may form a single most important economic activity for island states (WTO), it often is the only kind of tourism for most island states and their immediate environment. Can the concepts of Coastal and marine tourism then be separated from each other? Any answer to this may be dependent on the definition of the term coast as well as marine. Earlier researches on the concept of aquatic based tourism (Miller and Auyong, 1991; Orams, 1999) repeatedly used the word marine tourism; Orams explained marine tourism while continually referring to

coastal recreation, coastal environment, coastal communities, coastal access, etc. Subsequent authors such as Hall (2001); Davidson (2011) and Buckley (2012) have gone on to use the two words intermittently as well as interchangeably, thereby making it not an easy task to separate one from the other. Orams (1999) describes Marine tourism as including all activities carried out onshore and inshore including yachting, cruising, fishing, SCUBA diving, snorkelling, sea bathing, etc. both along the coast and in deep waters, usually requiring the use of equipment.

Coastal tourism on the other hand may be described as an integral part of marine tourism which has all the other features but may not necessarily be dependent on the use of equipment thus excluding yachting and deep sea activities (Hall, 2004).

Thus, coastal tourism being differentiated from marine tourism may be said to involve the use of the coast both for leisure and recreation with a wider variety of its activities and greater level of use associated with “near-shore environments”.

### **2.3.3 Concept of Coastal Tourism**

Coastal tourism although dates back to the fifteenth through the eighteenth centuries - drinking of sea water and sea bathing for healing and other physiological purpose yet it's significant development in Europe emerged in the eighteenth century era of industrialisation with ‘city’ workers’ desire to seek out areas distant from their work especially at the seaside. Urry and Larson (2011) attributes the advancement of coastal tourism within this period to the vastness of the coast line and beach. Previous studies also show that coastlines have shown faster rates of growth in response to coastal tourism “.....new mass leisure activity” when compared with other areas especially in terms of population and consequent developments (Creel, 2003; Yi-Ping Su 2010).

Coastal tourism has been defined from the same view in most related studies as all the activities involved in the delivery and fulfilment of man's need for leisure and recreation by tapping into the resources of the coastal waters and its vicinity whether onshore or offshore and in most cases modifying it to suit the wants of the tourists and businesses (Goodhead, 1996; Orams, 1999; Hall 2001, Hall 2009; Urry and Larson, 2011).

Defining coastal tourism mainly as related to the aquatic environment encompasses aquatic based activities including angling, bathing, canoeing, jet skiing, non-commercial fishing, leisure barges, SCUBA diving, snorkelling, surfing, tourist boat trips, water skiing and wind surfing (Laffoley, 1991).

Hall, (2001) gives a more encompassing definition (which is adopted in this study) of coastal tourism as including:

...tourism development (accommodation, restaurants, food industry and second homes), and infrastructure supporting coastal development (e.g retail businesses, marinas and activity supplies)..... recreational boating, coast-and marine-based ecotourism, cruises, swimming, recreation fishing, snorkelling and diving while excluding ocean-based tourism such as deep-sea fishing, and yacht cruising.

The importance of coastal tourism cannot be over emphasised; though it comprises only 8% of total tourism figure, it contributes \$30billion annually to global tourism (Yi-Ping Su, 2010).

In the area of leisure it can be counted as a major drive of vacationers, holiday makers as well as adventurers. The coastlines fulfil three of the four S of tourism – sun, sand and surf (sea), as most tourists seek to fulfil a need to share in the beauty, tranquillity, mystery and excitement of nature, depending on individual preferences

and what the destination presents. Klein and Osleeb (2010) suggest that the quality of the beach is very essential to tourism as it influences what value visitors place on any such coastal destination; such that “extremely natural sites” are perceived to be of high value to visitors (Ullah et al., 2010). This attraction tends to draw more people on an unending basis, increasing the use of the coastline and its environment and the resultant changes. Creel (2003), suggest that this kind of tourism while being beneficial may “lead to unsustainable coastal development as infrastructure is built on the shoreline”. Hence coastal tourism is now being considered as a tourism function that has become “harmful for the fragile natural ...areas” in coastal destinations (Tuhin, 2012).

#### **2.3.4 Understanding the Environment**

The environment may not be easily defined in one context. It however may be referred to as the set of complex, interacting relations between the individual, society, spatial and nature (Hall and Lew, 2009; Jabareen, 2012; Mason, 2012) based on which modern day environmentalists have adopted concepts such as Gaia. In the geographical cum scientific context, the environment constitutes of the four spheres of the earth surface atmosphere - air, biosphere-life, lithosphere-rocks, and hydrosphere-water. All these, often found together are of importance to each other as there is an unbroken change of reactions and interaction (Gossling, 2002) among all to form a balance. Evident is the interaction between human, water-marine and land or what Duxbury and Dickinson (2007) term terrestrial and marine environment. This work is centred on the hydrosphere which is defined as *all the water constituents of the earth- oceans, seas, rivers, etc., and the ensuing landforms herein such as coasts.* The oceans and seas in their vastness are known to cover over 70% of the earth’s surface providing diverse resources for human use, though writers have

made it known that these hydro-resources like other resources are limited or scant and insufficient for man's persistent harnessing especially the "coastlines and coastal resources" (Charlie, 1995; Pepper, 1996; Orams, 1999). The environment may also be expressed as built environment and physical environment (Mason, 2012).

The concepts of environmentalism and environmental behaviour or what most writers call modern environmentalism has been well documented and need not be dwelt upon in this work. However, it is a reference point for this research work considering its relevance to man-environment interaction and adaptation in whatever form our activities take (Pepper, 1996; Lawrence, 2000; Stern, 2000).

A consciousness of the ecosystem and how much we depend on it for continuous survival continues to drive scholars to want to understand what makes the environment - *land, air, sea, space* and their related landforms the way they are in their dynamic ways considering the need to harness all these for the value they offer for man's use (Broadhurst, 2001; Downes et al 2002; Gunn and Var, 2002;

An understanding of nature in terms of "knowledge, attitude and behaviour fosters environmental consciousness and increased knowledge about the environment which in turn generates a better interaction between man and the other components" (Pepper, 1996; Stern, 2000). Gossling (2002) however disagrees with such influencing attitudinal change as an endearment to being friends to the environment. In other words, individual understanding of the environment may be dependent on what knowledge they have at their disposal or individual experiences as well as activities they are "subjected" or exposed to.

Individual consciousness (Saenger, 2000) is further emphasised in deep ecology (concern for nature while transforming society) having identified with the uniqueness of human species which however like all other organisms is and must always be subject to the same environmentally inclined “laws and restraints” (Merchant, 1992 as cited by Pepper, 1996; Merbatu, 1998).

It is a common belief of environmentalist that embracing the environment as a complex form which should both be respected and protected for itself regardless of its value to man enables us to live in harmony with it in order to have a foreseeable future - indulging in development characteristics that will both meet the needs of today and ensure adequacy for children unborn (Broadhurst, 2001). This calls for the need to ensure environment and economic options are available to future generations by balancing value, efficiency and cost/benefits of development; supporting Commoner’s (1972) third law of ecology of the all-knowing capacity of nature and consequent detrimental effects of any human-induced changes which therefore requires man to live with rather than against nature’s rhythm.

If the belief that whatever man does to one part of the integrated ecosystem will affect the other parts and reverberate on humans (Mbiti, 1996; Hall, 2004; 2009) is to be taken as it were, then an assessment of what has already been done and is being done in the environment especially by tourism will not be irrelevant in order to ensure balance is maintained for continued cohesiveness of the same (Stern, 2000; Cashmore et al., 2004) while ensuring a state of health is maintained (Ko, 2005).

For any embrace to occur there must be an understanding of the intricacies and what influences and impacts are generated while tourism is interacting with the

environment; this is considering that “there is more to nature (society) than the sum of its part and that you solve problems by synthesis – seeing all the parts as a whole and related to each other” (Pepper, 1996; Downes, 2002; Roushaf et al 2011).

### **2.3.5 Environmental Impacts**

Downes et al., (2002) concept of views impact as an unusual shift in or change in an environment from its pre-existing condition or status; where this change or shift is reflected by comparing the status of the system before introduction of such activity (disturbance) with its status at a later time (response). Such a change may then be attributed to such an activity where it coincides with the start-up of the activity or afterwards. Impact may further be understood in terms of the relative distinctiveness and abnormality of the changes created on the properties of the system as *perturbation*.

A meta-analytical study by Evans et al. (2011) on fisheries co-management highlights the necessity of evaluating impacts on the environment, considering it as an important research and practice requirement in development and natural resource management.

In evaluating environmental impacts, it is therefore necessary to distinguish between human impacts and natural agents of disturbance (Cheng et al, 2005; Roushaf et al, 2010), although this is not always as easy as we assume (Osenberg and Schmidt, 1996; Underwood, 1996). This however, contradicts the view of environmentalist that all changes to the environment are as a result of human activities.

The Environmental Impact Assessment (EIA) theory, though not the focus of attention in this study, allows for identification and evaluation of probable

consequences of environmental behavioural activities on the environment while allowing for an adequately informed policy enactment either for correction or adaptation as may be required per case and per time. As a tool that facilitates decision making rather than a decision making tool itself, it is often influenced by both environmental and societal factors such as values and priorities, such that it encourages a continuous assessment of influences with a multi-dimensional approach (Lawrence, 2000; Cashmore et al., 2004).

The concept of Impact assessment as a subset of impact monitoring therefore aids an evidential differentiation between disturbances resulting from effects of human activities and disturbances arising from natural processes (Downes et al., 2002); furthermore, the effectiveness of EIA helps in creating a balance and long-term integration of use and dependence of the various ecosystem functions while incorporating local residents and opinion leaders as stakeholders (Cashmore et al., 2004).

It is presumed that complexities arise because impacts are often assessed either as a problem or not, depending on *inference*, often guided by various characteristics, which generates differences in perception (Kuran and Akan, 2005). In a study conducted in southwest Victoria, Wallis et al. (2011) found out that environment is the most critical of the three measures of sustainability.

In this vein, using the three key factors identified by Cashmore et al. (2004), this study identifies with presenting impact findings in a logical, coherent and comprehensible manner, with an aim to simplifying the complexities and divergence

often associated with interpretation of impacts as perceived by stakeholders (Monavari and Fard, 2011).

This is done by incorporating one of Saddler's (1999) principles of EIA - internalisation of externalities through a blend of stakeholders' opinion in the data gathering and evaluating the findings therefrom against secondary data.

## **2.4 Tourism and Environmental Impacts**

The early nineties studies of tourism was devoted to a position of cost-benefit-analysis of tourism as a whole especially in terms of socio-economic returns; mostly in line with conventional theories of development which are premised on the necessity of harnessing resources for wealth creation irrespective of the effects or impacts (Peet and Hartwick, 2009).

This was followed in the mid-nineties' (post 1991 Hawaii conference on coastal tourism) enlightenment phase with dramatic expression of the negative impacts associated with the continued clamour for tourism development and need for environmental responsibility.

Prior this, development was more attributed to societal transformation, resource and value exploration/exploitation and modernity itself with less worry about precise risks this might portend for the physical environmental (Gunn and Var, 2002; Peet and Hartwick, 2009).

Modernism and globalisation have revolved around an aim to control and manipulate nature to improve everyone's lot while changing several realities for the benefit of

the society; but several vital signs from the environment have proved to be against this, considering several consequences which indicate that modernity where “improperly managed” has done more harm than good.

Coastal tourism and its attendant development is one of such improvements made to nature and has been viewed as a successful contributor to economic growth (WTTC, 2012), yet it cannot be said that consequences are not associated with its fast growth with the coast being the attractive focus of 63% of tourists in Europe. It is therefore no news that tourism as an industry and coastal tourism developments are often of positive and negative impacts on the environment (Creel, 2003; NCSD, 2004).

Wilkinson and Salvat (2012), while adopting the concept of “the tragedy of commons” to coastal areas, suggested that tourism development continues to be a “major threat” as its interaction with the environment continues to lead to a decline in the available natural resources of coastal destinations.

Individual perspective of the impacts of tourism on the environment may be relative in terms of position in the resource chain e.g. a Marketer may view it as beneficial, a nature watcher or lover may view it as negative, and a victim of imported ailment may view it in an individual dimension, different from the other two perspectives. What makes these impacts positive or negative is dependent on i. the scale of tourism; ii. size of the resource being harnessed; and iii. relative use of the resource (Hall, 2001; Buckley, 2011). Medina-Munoz and Garcia-Falcon (1998) also suggest that impact of tourism depends on type of tourism, tourist behaviour and tourist service quality.

Orams (1999) points out that damages caused to the environment are not tourism influenced but rather are as a result of economic activities; yet his suggestion that marine tourism occurs predominantly in the coast being the most vulnerable part of the ecosystem (Medina-Munoz and Garcia-Falcon, 1998), is an indication that coastal tourism is of the most vulnerable impact.

Studies have identified several physical environmental global impacts that have been associated with tourism, such as, environmental degradation, coastal debris, pollution, resource depletion and environmental health (Hall, 2001; WTO 2004; Davenport and Davenport, 2006; Buckley, 2011; Silva and Ghilardi-Lopez, 2012).

Coastal tourism is considered to have several negative impacts on the coastal destinations, especially with pressure on the limited resources available in such destinations (Tuhin, 2012). Impacts vary from island to island (Briguglio and Briguglio, 2000). Hence, in their findings on sustainability measure, Altinay and Bicak (2005) suggest water quality, solid waste disposal, road traffic, natural vegetation and wild life as significant impact variables in the Karpaz area of North Cyprus. Land consumption is considered of most significant impact in the Balearic islands (WTO 2004); pollution, loss of natural landscape , flora and fauna destruction and degradation of landscape and site have been highlighted in the study on the Greek island of Mykonos (Cocossis and Njikamp, 1996). Erosion, though the least noticed by visitors is considered as one of the graver environmental problems from tourism as in the case of Rhodes island, Mallorca (Hughes, 1994) and Tuhin (2011; 2012) relates this to the disturbance of the natural processes of the coast by human activities such as tourism development.

These impacts have led to clamour for conservation, ecotourism, sustainable development and the creation of management initiatives (Lawrence, 2000; Stern 2000) such as Integrated Coastal Zone Management and the United Nations program of Small Islands Developing states (SIDs).

The oceans and seas may be vast and viewed as endless, yet it is evident that available resources there from are scant, so also are the coastlines and coastal resources (Earle, 1995).

More so, undertaking an evaluation of environmental impact of tourism function and development activities in small island tourist destinations will help maintain a balance in the environment (Altinay and Hussain, 2005; UNEP, 2004).

It may be that coastal tourism in itself might not be as grave in consequences as the development that characterises it as suggested by Urry and Larson (2011). This study therefore sets out to evaluate the impacts that are associated with activities surrounding coastal tourism within the environment, where this is done by integrating perception of public and government stakeholders with secondary data.

## **2.5 Coastal Change cum Coastline Degradation**

The coastal system has continued to change globally in response to natural factors and human factors. A phenomenon of concern in the last quaternary attributed to climate change is rise in sea level, where this has greatly influenced changes to several coasts globally posing several dimensions of threat to sustenance (Khan et al, 2012; Moss, 2012; Mauz et al, 2012; Nicholls et al, 2007; Woodroffe and Murray-Wallace, 2012).

Human activities have been suggested to have aggravated climate change in the last century, while the bid to catch up with globalisation through economic development has continued to result in changes to the coast either on large scale or gradually in some destinations (Carrier et al, 2012; Pessenda et al, 2012; Sekovski et al, 2012; Switzer et al, 2012) .

One such human activity that contributes to the continued use and modification of the coastal system are developments that characterise tourism within the coastal area, where this has generated influences in varying forms. The Coastal tourism impacts on the coastal environment are either as a result of development or tourist activities (Saenger, 1990). Impacts of coastal tourism could be on physical environment, ecological environment, human use value or quality of life values (Swaney et al, 2012; UNEP).

Coastal tourism and development is identified as one of the major causes of coastal degradation (WWF) especially in priority places such as Small Island States in the Mediterranean basin, being home to irreplaceable and threatened biodiversity (Swaney et al, 2012; Switzer et al, 2012). Among the twelve human activities identified by UNEP/GRID 2005 to cause coastal change and degradation impacts critical to tourism - solid waste disposal, road construction and commercial, residential development (accommodation) are noted to be major indicators leading to coastal land loss.

Land is a valuable resource for islands, such that increase in land erosion, resulting from pressure from building activities along the coast thereby disrupting the natural

processes (Tuhin, 2012) reduces the value of land as in the case of Gran Canaria (Saenger, 1990).

Kertesz (2009) defines landscape degradation as reduction in the capabilities of land in terms of “decline of all landscape forming factors and their synthesis” resulting from complex activities of nature and human. Coastal degradation is hereby being defined in the context of “landscape degradation”, as the impact of any human activity that alters the features or processes that occur naturally along coastlines. This is expressed in terms of loss of landforms either to the sea or to intense human usage. This therefore necessitates the need to understand to what extent tourism uses the coastline, especially since the problem is often associated with direct use of coastal land through construction of hotels, apartments i.e. tourism accommodation and infrastructure.

Mason (2012) while explaining carrying-capacity notes the differences in response of land to tourism activities while also indicating it as relative to perception. Landscape degradation and loss of landforms caused by tourism is common place in small island states, mostly from increased demand for buildings and infrastructure (Briguglio and Briguglio, 2000; Mason, 2012). As in the case of Mallorca, landscape presence in relation to building on the coast often creates loss of coastline (Hughes, 1994). To further support this, Kertesz (2009), points out that although several global process are responsible for changes in the landscape, yet “overexploitation of this resource in sensitive areas” such as small islands heightens the degradation process.

A review of literature suggests that the existing generic studies on coastline degradation as a result of coastal tourism activities have tended towards aesthetic

degradation rather than physical coastal land loss especially loss of landforms; as such emphasising the relevance of this study.

# **Chapter 3**

## **UNDERSTANDING ISLANDS: CASE OF NORTH CYPRUS**

### **3.1 An Overview**

Islands which are an area of land surrounded by water (but smaller than a continent) are formed basically from movement of the tectonic plates at the bottom of the ocean sometimes over hot places of the earth culminating in a chain of geological processes thus producing different kind of islands.

In small island states, tourism is generally of coastal nature as “the islands are coastal areas in their entirety” (UN 1994); and are often characterised by isolation which often reveals the severity of tourism impacts. The unique characteristics of small islands (beach, flora, fauna and scenic view) have endeared them as major tourist destinations over the years, thus forming a crucial component and contributor to the tourism industry.

An awareness of what process an island came through is said to foster an understanding of its environment and natural resources, which when properly assessed and evaluated underpins a firm grip of the kind of environmental impacts that can be associated to any form of development carried out on the island. Also, islands share similar features of resource constraints and fragility especially the small islands.

The UNEP ISLANDS Web Site, summarises islands as having an

.... attraction for people for many reasons, including beauty, environmental interest, recreational opportunities, security and uniqueness, and this is the foundation for island tourism ... islands and small island States are increasingly recognized as a special category worthy of distinctive treatment....noted for their unique fauna and flora which are particularly vulnerable to disturbance and destruction by human activities. With the increasing rate of global change, islands represent some of the most fragile and vulnerable resources on the planet.

### **3.2 The Mediterranean basin**

The Mediterranean is a catchment covering 1.75km<sup>2</sup> with population of 446m (7% of the world population) containing twenty (23) countries (Guillaume & Comeau, 2005). The region lies between three continents: Africa, Europe and Asia, and has widely “different....environmental....ethics and policies that play an important role in how their water resources are valued and managed” ([watermonitoringonline.com](http://watermonitoringonline.com)).

The Mediterranean basin has been identified as the most important front of tourism development of the century (Ullah et al., 2010) with the largest number of destinations as well as tourist arrivals, and has contributed one third of global tourism receipts (WTO 2003). Its coastline is a major attraction for tourists’ visits with an estimated increase up to 637million by 2025. However, WWF lists the Mediterranean among other regions of the world that are of global environmental concern.

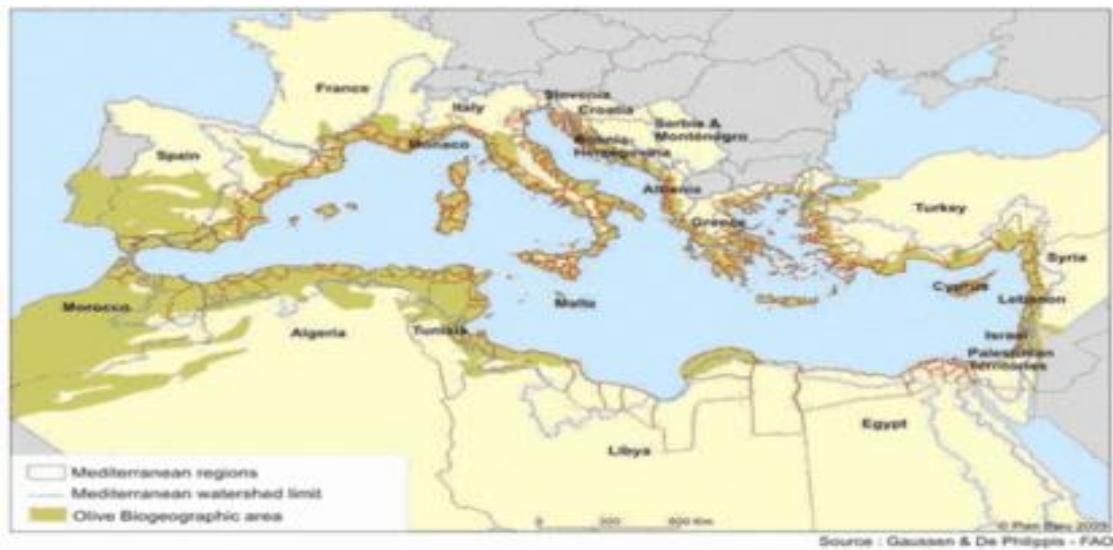


Figure 3.1: The Mediterranean basin

Source: water monitoring alliance

Within this geographical region, Malta and Cyprus have emerged as two major small island states among the most popular large landlocked destinations of Spain, France, Italy, Greece, Portugal and Turkey.



Figure 3.2: North and South Cyprus incorporating the buffer zone

Source: Google Maps, 2012

Cyprus is the third largest among the islands in the Mediterranean Sea (Ileri, 2006) and the world's 81<sup>st</sup> largest. Table 3.1 gives summary information on the Northern part as the island is divided into two parts by location as North and South Cyprus.

### 3.3 North Cyprus as an Island State

A description of North Cyprus as a small island state may not necessarily be done in isolation considering that it is part of the major continental island of Cyprus sharing most characteristics. North Cyprus can be classified as a small island state in terms of size as well as economic characteristics “smallness, isolation and vulnerability” as suggested by Mihci and Karaman (2009).

Table 3.1: Summary of data on North Cyprus.

<b>Geography - Physical</b>	<b>Demography</b>	<b>Economy</b>
<b>Region</b> Mediterranean Sea	<b>Population</b> 265,100 (2010)	<b>Human occupation</b> Inhabited
<b>Lat</b> 35.10° N	<b>Growth rate</b> 1.1%/year	<b>Growth Rate</b> 1.1%/yr
<b>Long</b> 33.40° E	<b>Pop agr/fish/mining</b> %	<b>Major Human Activities</b> Public services and Trade & Tourism (21 & 16% of GDP respectively)
<b>Altitude</b> 2021 m	<b>Urban pop</b> 62%	<b>Accessibility</b> port, airport
<b>Land Area</b> 3355 sq. km	<b>Annual Growth</b> 2.5%	<b>Annual tourist arrivals</b> 902,390
<b>Shoreline</b> 650.3 km (scale 1:1000000)		<b>% pop in agr/mining/fishing %</b>
<b>Depth to nearest land</b> >500 m		<b>GNP Growth Rate 1977-2010</b> 3.6%,
<b>Nearest island</b> 80km		<b>GDP/Capita</b> \$9,533m
<b>Nearest continent</b> Asia		
<b>Island type</b> continental		
<b>Climate</b> Mediterranean, mean temp 10-27°C, hot dry summer		

Source: TRNC State Planning Organisation

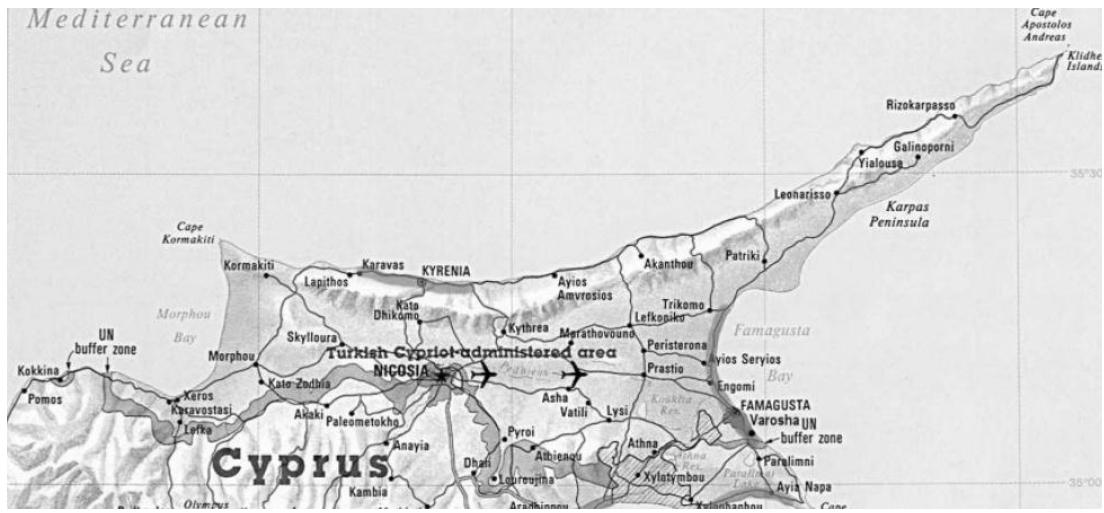


Figure 3.3: Political map of North Cyprus across the green line (extracted)  
Source: L. Altinay (2000). Possible impact of a federal solution to the Cyprus problem on tourism industry of North Cyprus

### 3.3.1 Geography

North Cyprus is a continental island lying on Lat. 35.10° N Long. 33.40° E with a total land area of 3,355 sq. km and is 2021m above sea level. It is characterised by Mediterranean climate with temperature mean of 10-27°C, hot dry summer and mild winter (Ileri, 2006), which makes it appealing to tourists from colder areas.

North Cyprus is classified as a small island state and grouped among the Small Island Developing States (SIDS). It shares similar characteristics with other islands like Malta (316 sq. km – population: 404,500), Rhodes (1398 sq. km – population: 117,000) Seychelles (455 sq. km – population: 87,500) and other Mediterranean island states. As a part of the larger island of Cyprus, it is located in the Mediterranean Sea with the island's closest landlocked neighbours being Turkey (72km from cape Kormakiti) to the Northern coast and Syria (160 – 180km) to the northeast coast but from Cape Apostolos Andreas this distance is only 105km (Sfikas, 1993).

As shown in figures 3.2 to 3.4 (highlighted area), the North Cyprus coastline begins from Morphou bay running through Kyrenia on the west along a sharp arc to the tail of Cape Apostle Andreas (a promontory) from where it runs back south-westward through Karpaz peninsula to the coast of Famagusta along over 200km shoreline.

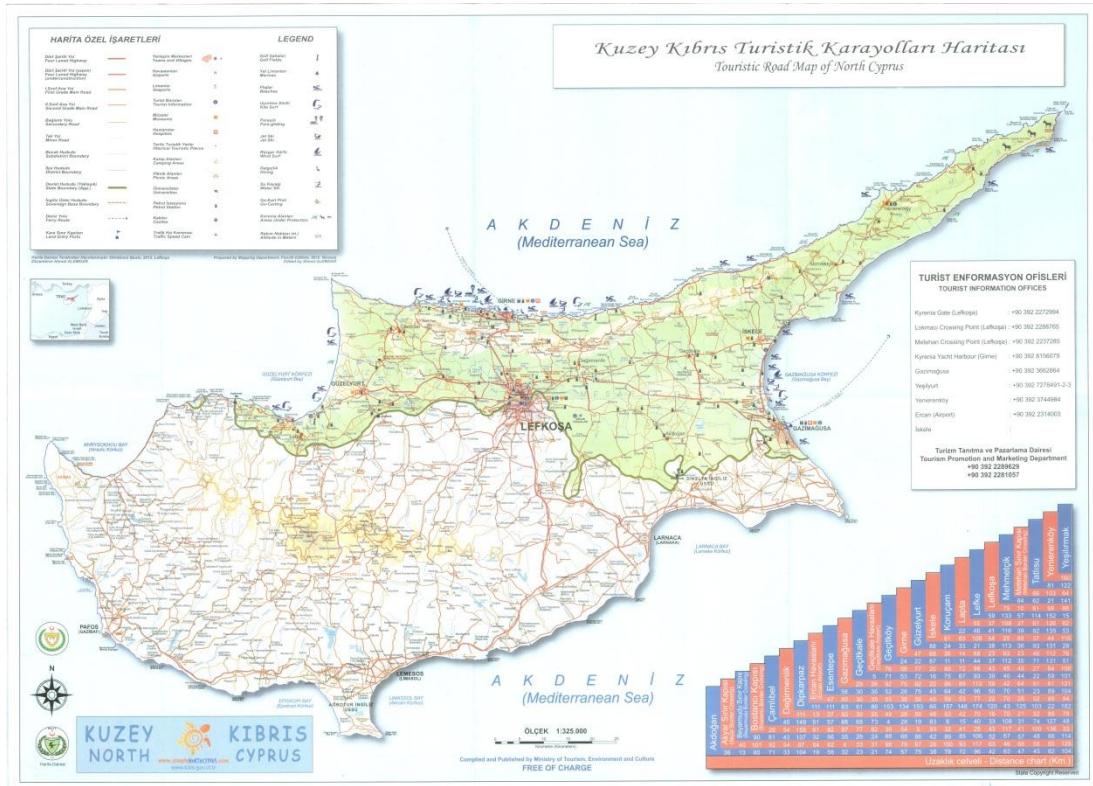


Figure 3.4: Map of North Cyprus depicting activities along the coast

### 3.3.2 Geology and Landforms

From a basaltic lava flow through numerous fissures, layer upon layer of rocks having been combined with Lapithos into crusts of calcarenite were formed on the seafloor of the Mediterranean creating the Kyrenia range in what today is known as the Cyprus region. Over millions of years and natural processes North Cyprus gradually rose out of the sea in a chain of mountainous linkage of Kyrenia island range with the Troodos island (presently predominantly in South Cyprus) by the Mesaoria (Dreghorn, 1979; Newman, 1953).

Through processes peculiar to karst regions, the Kyrenia range formed from years of sandstone compaction having its foothills covered with calcarenite limestone extends as a coastal mountain chain (linked by a shingle beach) eastward through Alagadi rock towers and table tops up to Cape Andreas at the tail of the Island from where it dips south-westwards through Famagusta. Thus resulting in over 200km “sandy, rocky or pebbly” coastline characterised by several small and scattered beaches reaching out to the sea from jagged yet gentle sloping cliffs of varying heights except for steep cliffs along the coast of Karpaz, some up to 20m (Viney, 2006; Sfikas, 1993).

The beaches of North Cyprus are characterised by soft sands such as the beautiful tiny yellow beach sand found on the Famagusta beach and the continually changing sands of other beaches like the Alagadi beach; sand dunes on the Kyrenia coastline (which are almost no longer noticeable due to construction), dispersed small rocks - toadstools (which serves as stools for sunbathers), seaweed firmly rooted to the rocks, different sizes of shallow caves (formed from sea fossils called *foraminifera* bound in limestone processes) from which sandy beaches were formed having been repeatedly worn down by the sea leaving behind series of garish rocks strewn around.

This brief presentation based on the works of Dreghorn (1979) among others, gives a glimpse into the landforms of the coastline of North Cyprus as well as the topography further inland, where the former is the point of interest in this study.

The Kyrenia region boasting a 62 miles coast which extends from Cape Kormakiti to Dhavlos, is a distinct mountainous area which used to be a succession of small beaches characterised by coastal features, especially small dispersed rocks. Extensive

areas of olive and carob trees were common along the coast as well as lemon groves and jasmine with villages located along its gentle mountain slopes (Christodoulou, 1959; Halliday and Lushington, 1998; Meikle, 1977; Schmidt and Worley, 1991). This region, once prided a five mile beach terrace to the west which presents natural conditions that Dreghorn (1979) acclaims to have endeared the construction of so “many luxury hotels and tall blocks of flats”, while the other locations have not been so ‘lucky’ construction wise.

Famagusta region hosting an important sea port, with its long sandy beaches on seemingly unending shores is located at the edge of a fertile monotonous plain. With numerous archaeological remains, the region showcased magnificent orchards, few palm trees and a number of unique flora life.

The third region is the remote narrow Karpaz peninsula extending 45 miles from east to west in a chain of low-cut mountainous chain with a narrow plain setting it aside from the Kanatara Castle and the Kyrenia range. A special world on planet earth, with unique scenery of empty beaches which endears it as nesting ground for sea turtles and very rare as well as endemic species of flora and fauna. (Micula and Micula, 2006), the area is a sanctuary from the claustrophobic atmosphere of islands.

### **3.3.3 Demography**

The island population as at 2007 was 265,100 with 88.5 population density and a growth rate of 1.1%/year. This population figure comprised of 54% male and 46% female. Categorisation of the population shows that the age group accounting for a major percentage of the population is 20-44 at 47%, followed by 0-19 years and 45-74 years at 27% and 23% respectively, while the remaining 3% consists of 75 years and above out of which a further 9% is within an unknown age range. Following the

characteristic suggested by Weeks (2010), judging from data on population and number of housing units, it can be presumed that North Cyprus consists of three (3) urban areas namely Nicosia, Famagusta and Kyrenia districts while two (2) other districts of Guzelyurt and Iskele are transiting from rural to urban. These areas are called municipalities in the population and housing definition of North Cyprus. Thus, based on district and sub-district population distribution, data shows a steep in rural-urban population with 53.9% of the population dwelling in these three (3) cities, while another 8.4% live in Guzelyurt and Iskele; thus an urban population of 62.3% compared with 37.7% rural population. The area recorded a population density 88.5 for the record period.

### **3.3.4 Economy**

The major human activities on the island are categorised into ten sectors comprising of agriculture, industry, construction, Trade, Tourism, Transport and communication, financial institutions, ownership of dwellings, Business and Personal services, Public services and import duties. Public service is the largest economic sector followed by Trade and Tourism contributing 21% and 16.0% to the GDP respectively. Of the Trade and Tourism figure, 5.4% came from hotels and restaurants at an average growth rate of 5.6% when featured into the total GNP of 3.6% and annual GNP Growth Rate of 3.6% (1977-2010) of which Trade and Tourism accounts for 18.3% of the real growth rate, and Hotels and restaurants contributed 4.2% of the rate.

In 2010 and with 3.3% Inflation rate, the GDP/Capita was captured at \$9,533. The GNP was \$3.7m and GDP ytl5.6bn (\$3.75bn), where Trade and Tourism was ytl900m (\$597m) of which hotels and restaurant was ytl302m (\$200m); with an average exchange rate of 1.5063ytl to \$1 in 2010. Accessible both by sea and a small

airport, the island has an annual tourist arrivals of 902,390 and net tourism revenue of \$405.8m (2010).

Total employment for the period was 93,498 of which tourism contributed 9,224 (almost 10%).

### **3.3.5 Political**

North Cyprus is split from its South counterpart and both recognised as individual entities. The two sides are separated along a 180km green line created from the aborted United Nation Secretary General Kofi Annan's plan (Arch, 2008) pursuant to the 1974 violence that erupted between the Greek (South) and Turkish (North) communities. Some improvement ensued from the UN intervention which allows for citizens of both communities to cross into each other's territory while also giving access to EU citizens without restraints.

Attempts have continued be made by world leaders to resolve the impasse plaguing the island as this is considered an impediment to harnessing and development of the natural resources in the area (Sozen, 2012).

North Cyprus has been tagged to be in political isolation (Yasarata et al, 2010) and accessibility limited unlike its South counterpart (Altinay et al., 2002), where these constraints have limited the harnessing of its tourism potential over the years. This is considering that tourism has emerged to be of major economic relevance to the island alongside agriculture and industry.

Sozen (2012) argues that “external factors combined with the mood in the current peace negotiations, suggest that the Cyprus problem is nearing an end game”, where

recent developments show that the limited exploration of the tourism potential of North Cyprus might soon be a thing of the past.

### **3.3.6 Tourism Industry**

Since tourism was declared as a leading sector towards economic development of North Cyprus in the mid-eighties (Altinay and Hussain, 2005), the tourism industry maintained a slow but gradual growth over the years. This is evident in the increase in the number of tourist agencies, hotels accommodations, restaurants and the increase in tourism contribution to GDP and employment.

The number of hotel accommodations increased from 123 (10,916 bed capacity) in 2002 to 142 (17,358 bed capacity) in 2010 thus increasing the pressure on land use especially along the coast. Net tourism income grew from \$95.1m to \$405.8m within the same period. The number of tourist agencies is well over 300 compared with 148 in 2002. With the global call for sustainable development, attempts are being made to develop several tourism activities to enhance the continued growth of the tourism of North Cyprus.

Among the popular destinations of intense tourist use are Kyrenia, the Karpaz peninsula and Famagusta city. Bafra in the Karpaz region has emerged as one of the major environmental concerns (Altinay and Hussain, 2005; Alipour et al., 2007) with the increased number of buildings being erected directly along the shoreline.

## **3.4 Case Significance**

The EEA (2006) report on the Mediterranean points out the environmental impacts attributable to the Cyprus coastline, but of note is the absence of any of the towns of the coastlines of Northern part of the island. Should it then be assumed that only the

southern part of the island is of environmental consequence? The concept of de-differentiation therefore comes to bear here. This is considering that, the island is an integration of both sides with physical attributes cutting across uniformly, although the political divide where there is similarity of function and activities between the two areas, and flow of traffic (“though guided”) between both sides.

This EEA report (2006) suggests the need to address issues of: ... “impacts and needs in each state” in order to facilitate a better management of the Mediterranean region as a decentralised whole; this is considering that overall the information about the environmental state, trends and pressures is rather poor in the Mediterranean as compared to the North and Baltic Seas.

In light of the above, this study is considered as an addition to the required baseline data on North Cyprus (as a compliment to the South) for a better understanding of the development process of the region from a non-natural science disciplinary perspective.

# **Chapter 4**

## **METHODOLOGY**

### **4.1 Overview of Research Methodology**

Methodology often expresses the various steps adopted in the presentation of a research case with emphasis on how data is sourced, assembled, synthesised and presented.

Studies show that of the two research methods, no one methodology is superior, better or easier than the other, only how the methodological approaches attempt to address and answer research questions or objectives differ (Altinay and Paraskevas, 2008; Lancaster, 2005).

While the quantitative approach often bothers on frequency of occurrence of issues, the qualitative methodology focuses on why such issues occur. The aim or severity of issues usually acts as the critical denominator which dictates the method that is most suited to such study. Some phenomena however, may require an integration of both methods of research for adequate embracing of inherent issues (Altinay and Parakevas, 2008; Lancaster, 2005; Trochim, 2010).

The qualitative approach addresses issues in a conical structure, such that specifics are indicated and then spread unto generalisation of facts. On the other hand,

generalisation of an issue underpins the quantitative approach where hypothesis developed are used to prove the acceptability of such generality in a funnel structure. In a qualitative research, flexibility is a major factor, as the approach allows for use of multiple means of data collection while also giving room for analysis of the same using words and if any at all, limited numbers. However, as earlier mentioned, the suitability to study may call for adoption of quantitative data collection method involving use of survey or polls with data analysed and presented with the use of array of maths and numbers (Trochim, 2010).

## **4.2 Study Contextual Methodology**

Pursuant to the above as well as the aim of this research being to evaluate impacts of tourism function activities on the environment (with focus on shoreline), the qualitative approach is considered best suited to the study as it allows for interconnection and coherence (Maxwell, 2013) in order to answer the following questions:

- As a resource function, how active is coastal tourism as perceived by people in North Cyprus?
- What activities do these people associate with coastal tourism?
- What are the environmental influence (s) and response (s) to these activities over the years; with a specific focus on the coastal land?

In answering these questions, the phenomenologist philosophy was adopted considering its importance to this research since it does not only allow for “use of multiple methods to establish views” (Trochim, 2010), but allows for theories/hypothesis/propositions to evolve from analysis of the data collected and analysed.

With the qualitative methodology, interconnection and interaction among the different variables are allowed to usefully fit into the environment without any orchestrated or predetermined starting point; therefore allowing for adjustments and changes as issues influence and are influenced within the context of the study. This is important to this research in line with Maxwell's (2013) suggestion that even with considerable flexibility, there must exist an unbroken constrain among the different parts of a research in other to ensure the effectiveness of the final outcome.

This study method was premised on four components which collaboratively influence the value and validity of a qualitative research as pointed out by him; herein research relationships, selection, data collection and data analysis.

### **4.3 Research Relationships**

Firstly, the limited existing statistics on North Cyprus coasts and changes in the shoreline were obtained from archives; this is considering its relevance to reaching better precision as indicated in a study of coastal degradation in Malta. Farrugia (2008) employed historical data on the changes in the shorelines positing that it aids better accuracy in rate prediction; where integrating this with land-use survey data brought about a suggestion on the possible rate of degradation in the case areas.

Secondly, interviews were conducted to gain a better understanding of coastal tourism and its functions as understood by the people. This is because, the perceptions and views of stakeholders about tourism development is considered to be of great importance, considering that they are mostly the ones at the receiving end of the direct and ripple down effect of impacts on the destination either as stakeholders or stewards and may assist in determining future management (Dodds, 2012). The

EIA tool embraces stakeholder inclusion in evaluation of impacts of activities that affect them and their environment, while adopting the views of these social actors either as political players or local residents towards reaching informed position that can facilitate effective planning and implementation of decisions/policies (Gunn and Var, 2002; Cashmore, 2004).

Ko (2005) suggests the need for adoption of quantitative and scientific method for studies involving perception of respondents. A qualitative approach was however suggested for adoption in such research work by Oikonomou et al. (2011) as it can be used to express perceived values especially where actions are uncertain and may not be easily predictable.

Another school of research argues that qualitative approach is considered more suitable to evaluation of impacts as it relates to people's value perception. This is indicated as surmised by Gossling (2002) that

travel may foster environmental knowledge, but will not necessarily lead to positive changes in attitudes, awareness or environmental behaviour. Tourism may rather reinforce man's separation from nature, where this cannot be quantified in terms of consequences

It was therefore of high necessity to understand people's assumptions and perceptions in order to have a better grasp of their standpoint on impacts and influences (Pepper, 1996; Groeppel-Klein et al, 2010) as it concerns the environment in which they are stakeholders and stewards. Therefore further justification was given to adoption of the approach in this study.

Thirdly, the respondents (stakeholders) in this study were categorised into four basic groups drawn from government, NGOs, municipalities and academia. Such

segmentation was to help to a great extent eliminate the element of bias as views were obtained from distinct segments with presumed different political and socio-economic disposition. As in the study on residents' perception conducted by Fraumann et al (2011), the stakeholders were segmented into different categories with an aim of gaining "insightful interpretation and greater flexibility" from the evolving matrix. Categorising segments in this study was done based on findings from citizen involvement by Burby (2007) noting that six groups (often most represented) and other groups (less represented, such as special districts, older people's groups, professional groups, environmental groups, etc.) often define stakeholders, clad in what he terms an "iron triangle" of local business and development interests, local elected and appointed government officials, and neighbourhood groups.

The first segment included respondents being drawn from among well informed and enlightened persons involved in the day-to-day policy and planning processes of tourism in North Cyprus i.e. State officials (local elected and appointed government officials). The second segment was made up of respondents drawn from among tourism practitioners in the non-governmental sector. This includes business and/or professional persons of any gender cutting across all age brackets, as it is presumed that the views of such persons regarding the evolution of tourism in the island of North Cyprus is not subject to such factor as demography (business and development groups). The third segment comprised of head of municipalities being representatives of the local residents. These individuals, who as a result of their roles in the communities often share the views of the people to whom they are accountable, are also drawn so as to obtain information from the local's perspective

(neighbourhood/special district). The fourth and final group was drawn from the academia (professional) in other to obtain a view that is relative to global understanding and implication of issues while attempting to obtain answers to the research questions and to lend reliability to this study.

Fourthly, in-depth interviews were conducted to obtain data from respondents in segments two, three and four while semi-structured interview was adapted to segment one. Segment one respondents were considered to be more knowledgeable on the subject and will be able to give specific information hence the adoption of semi-structured interview to them while in-depth interview (unstructured) was applied to the other segments so as to get a deeper meaning to the subject.

Alipour et al (2003) in their study of beach users' perception in North Cyprus adopted the qualitative approach of in-depth interviews in gathering data while complimenting this with a qualitative description of the obtained perceptions. Yet for the purpose of this work, various techniques were rather combined for data synthesis from a rich depth of triangulation. Oikonomou et al. (2011) in doing a multi-criteria analysis of ecosystem functions, combined data obtained from secondary sources with data collected from stakeholder segments through institutional analysis, participant observations and in-depth interviews, in other to obtain stakeholders' perception of impacts. Hence, data was also sourced from some of the respondents especially maps, pictures and rare documents.

As depth and substance of data are two critical factors in standard qualitative work, the number of respondents was limited to twelve (12) individuals drawn across the four segments irrespective of their gender. This was predicated on the inductive

approach which is effective as regards small samples while allowing ease of application and flexibility.

Finally, all data obtained from these varying sources of secondary data, in-depth interviews and semi-structured interviews were integrated with intersection emergence allowed for presentation of the propositions. This also and most importantly support the inductive approach which allows for exploration in contribution to the sparse literature on the area of study, while giving room for adjustment to new ideas and issues as they arise.

#### **4.4 Sampling (Selection)**

Sampling has been identified as the scientific procedure adopted in selecting representative units from a population in other to arrive at an informed inference adaptable to the whole population (Trochim, 2010); where the choice of method (s) is often guided by the aim, intent, scope and resource availability of the research. For the purpose of this study, four segments of the population have been targeted using non-probability sampling technique predicated on purposive sampling, regarded as a third sampling technique. Purposive sampling allows for selection of participants based on intent so as to assess information of particular relevance to a study. This technique fulfils five important goals of achieving representativeness, heterogeneity, theory criticality, illumination of differences and answering questions based on established relationships (Maxwell, 2013).

With exception of the fifth, all these goals were in tandem with the purpose of this research work, towards arriving at a meaningful result. In order to reduce bias and improve validity of the purposefully selected participants, the sample units were further defined through non-probabilistic stratified and quota sampling (Trochim,

2010). This method is most suited to the research as it was being guided by a defined aim to be investigated by harnessing informed view from well-defined target groups which may allow for generalisation of findings.

Segment 1 was clearly defined to include government personnel also termed decision makers or opinion leaders in the tourism industry of North Cyprus irrespective of gender or age. Three (3) respondents in this category were drawn from among state officials as follows:

- Ministry of construction and transportation
- Ministry of Tourism
- Meteorology Office

Segment 2 covered the market aspect of tourism practitioners with four (4) respondents drawn from management of NGOs as follows:

- Hoteliers association
- Travel agents association
- Environmentalist organisation
- Amateur bird watchers association

Segment 3, which was the most difficult to define is the local residents or what is often termed community. Drawing few respondents whose views will be representative of an overall adult population of over 180,000 might be considered not particularly representative; hence, in line with the sampling approach of the study, from the five (5) districts of the state, 2 (two) respondents were selected from among the heads of the twenty (28) municipalities, one (1) from coastal municipalities and one (1) from an ecotourism areas. These were:

- Office of the Mayor of Famagusta

## Office of the Mayor of Buyukkunuk

Finally, in order to limit the error often associated with the adopted samplings, expert opinion was sought by selecting three (3) respondents from the different academic fields, not below Doctoral position, drawn from Eastern Mediterranean University which is one of the seven (7) universities in the state and situated in a coastal location, to allow for validity, thus covering segment 4. These were drawn as follows:

-  Associate Professor (Tourism Planning)
-  Assistant Professor (Sociology of Tourism)
-  Assistant Professor (Marine Biology)

### **4.5 Data collection**

Data collection methods are means employed to answering research questions based on what data is required. Since two categories of data were of importance to this research, data was collected from both primary and secondary sources, for complementarity and expansion.

Maxwell (2013) is of the opinion that combining methods allows one to gain greater depth of understanding especially to provide divergent view within the same research approach. This creates a better understanding of complexities within a phenomenon rather than combining methods from two different research approaches. The secondary data were sourced both electronically and from government and individual databases and people's records while the primary data was sourced from the field directly from the selected respondents.

#### **4.5.1 Secondary Data**

Information on North Cyprus cutting across socio-economic indices was obtained from the electronic database of TRNC State Planning Organisation as well as other state websites, as at date of this research. Historical Geo-Physical data of the island was also obtained from archives, state documents, publications and syndicate sources. Few of this data were made available in the data presentation section of this work.

#### **4.5.2 Primary Data**

In order to obtain new and first-hand data, individuals were engaged directly and face-to-face with the use of interview as an instrument. Interviews in two forms of in-depth interview and semi-structured interview was considered as very central to collection of raw data in this research.

The first was in-depth interview, with respondents interviewed in details within guideline of the research so as to help obtain answers to the study questions. It was adopted for its applicability towards achieving the aim of the study as it will help towards obtaining answers to the questions highlighted in the study. This is because, it is very suitable for exploring issues and topics that affect people, hence obtaining their views as expressed in their own words and probing which in turn gives more depth.

The second instrument is the semi-structured interview, which though a bit more restrictive compared with the in-depth interview since respondents are taken through predetermined issues and topics, yet it served as informative and rich source as it was not done with any form of rigidity while yielding specific information. Conducted

face-to-face, it eliminated the limitation of telephone interviews which often makes it similar to questionnaire that limits responses to a range of alternatives.

It should be of note that it is not being suggested that alternative instruments available for collection of data necessary for this research are of less importance or of lesser quality. One of such instruments is structured interviews in form of questionnaire which allows for inclusion of a large sample of populations and gathering of large data within a very short space of time. Yet, it is only usually beneficial where breadth is the focus characteristics of required data rather than depth and richness which are undisputed attributes of interviews. Structured interview also restrict respondents within a predetermined range of answers which might not represent the actual responses of the respondents while also restricting the interviewer with the pre-set questions.

Observation of the various function and actors is also a viable alternative, such that it allows for actual observation of what people do or events. This is considering that it often yields rich data where interaction and return effects are being studied. However, it often requires a lot of time, high degree of sensitivity and appropriateness, especially towards getting new information and above all is often steeped towards subjectivity of the researcher. Observation would have been considered most suitable where it that this research was focused on description of the study settings, behaviours and/or events as well as making inferences. Interview therefore was adopted as it provides rich and deep information especially from voiced perspective of respondents, while also allowing the interviewer to observe undertones and body language which may lead to further questions and more revelations. This allows for gaining an understanding of perspectives of stakeholders,

making it is a better instrument to the use of observation. Ultimately, adoption of interviews was less demanding on time when compared with observations and less encumbered with issues of ethics and sensitivity.

#### **4.6 Fieldwork**

Two types of interview techniques were helpful towards finding out environmental behaviour and consciousness as regards coastal tourism and its supporting activities in North Cyprus as obtained from the respondents. These respondents were carefully selected based on their presumed knowledge of North Cyprus, tourism and socio-physical environment, as well as to manage the hurdle of language (North Cyprus has Turkish as its official language).

The interviews were done within a space of three weeks at locations suitable and convenient for the various respondents, such as offices and meeting rooms. This was to ensure that they were able to express themselves freely and as they deemed fit. After brief introduction of the research subject and assurance of confidentiality, consent of the respondents was sort allow digital recording at each interview session where this was not objected to by any of them. Some respondents were willing to give pictorial description of some aspects of the discussions as a form of emphasis while most provided maps and documents which they felt could be informative.

The depth interviews were conversational with respondents allowed to speak freely of their views and questions put across where and when clarifications were needed. Noteworthy is that few of the respondents had reservations about some economic/political decisions related to the subject due their position, but would

speak deeply about some of such issues (thus justifying the interview type adapted in such a case).

Most of the interviews were conducted in English while three required some translation from English to Turkish and then to English. Of these, only with two respondents was there some difficulty in accessing deep information due to language barrier, although this was not much of a hurdle as some relevant information came forth, even when topical issues were sometimes deviated from. Nine of the respondents were included in the open interview covering topical issues in alignment with the themes of the study, while the other three were asked pre-determined question covering the same issues, but were also allowed to discuss issues outside the list of questions so as to obtain more information. Overall, all twelve interview sessions ranged within a time period from 22minutes to 74 minutes.

Finally, all recorded interviews were transcribed directly as captured within 24-48 hours of completion of each one so as to guide other interviews should there be need to delve into some issues outside the study them while also aiding data management as suggested by Maxwell (2013).

#### **4.7 Data Coding**

Table 4.1: Chart showing mode of data collection and sample segments

<b>Sample Segments</b>	<b>Code</b>	<b>No of Respondents</b>	<b>Interview Type</b>
Government	W	3	Semi-structured
NGOs	X	4	Unstructured/Open
Municipality	Y	2	Unstructured/Open
Academia	Z	3	Unstructured/Open

Table 4.2: Chart showing number of respondents, segment category and interview type

Codes by Segment and interview type	<b>Government</b>	<b>NGOs</b>	<b>Municipality</b>	<b>Academia</b>	
	W S1	X U1	Y U1	Z U1	
	W S2	X U2	Y U2	Z U2	
	W S3	X U3	-	Z U3	
	-	X U4	-	-	
<b>Total</b>	3	4	2	3	<b>12</b>

S = Semi-structured interview U = Unstructured interview

Summary of the primary data collection, number of segments and number of respondents is shown in Tables 4.1 and 4.2 by applying two interview types.

Each of the four (4) sample segment was assigned a unique code such as Municipality coded as Y.....Academia coded Z.

Also, respondents in each segment were further assigned individual codes following the generic code subject to the interview type applied to them. The first respondent from government source having been interviewed in a semi-structured manner was coded WS1 through to the third respondent coded WS3. The other three categories have respondents coded with U appended to their unique segment code indicating that Unstructured interview was adapted to them; such as respondent in NGOs represented with XU1 to XU4, second respondent in Municipality segment coded YU2 and third respondent in Academia coded ZU3.

Pursuant to this, references to specific statements, views or additional information were made via the individual and segment codes.

# **Chapter 5**

## **DATA ANALYSIS**

### **5.1 Categorising and Connecting Data**

During the weeks of interviews, all respondents were cooperative and were willing to assist with as much information as possible towards helping to generate answers to the questions set at the beginning of this study. As noted in the previous chapter, the inductive approach was adopted in collection of data with the aim of allowing the data to create patterns in line with existing themes as well as emerging new themes. At the completion of interviews and data collection, classification of all raw data was done from the transcriptions and codes were assigned to categorise sources and members of each source. Although anonymity was not required by any of the respondents, yet it was considered a breach of trust to use individual names and office except where necessary. Items were classified into broad themes which then guided sub-categorisation based on similarities and relatedness, and intersections allowed to emerge from the resulting matrices. To prevent loss of meaning and misinterpretation of the different categories, contextualisation was introduced with the aim of connecting categories with meanings presented through the expressions of respondents.

### **5.2 Overview of Tourism Endowments of North Cyprus**

North Cyprus as an island located in the Mediterranean is surrounded by sea from all around. With Mediterranean climate characterised by average temperature between 12 - 29 degrees Celsius from January through December, all year average sunshine

duration from 5 – 12 hours, average wind speed between 2.2 – 3.9 m/sn. These are monthly averages over 30 years period as shown in Tables 5.1 to 5.4.

In addition to its enthralling meteorological indices, the geological endowments (landforms) both along the coast and in the hinterland all combine to make North Cyprus one of the most attractive tourist destinations in the sun-region and the world. In other words, the island is endowed with Sea, Sand and Sun, three (3) of the platforms for tourism, and all in abundance.

Table 5.1: Famagusta meteorological indices (1978 – 2007)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
Avg temp °C	11.9	11.9	13.5	16.8	21.1	25.3	28.0	28.1	25.5	21.8	17.0	13.3	19.5
Max temp °C	16.5	16.6	18.8	22.4	26.6	30.8	33.4	33.5	31.3	27.5	22.1	17.9	24.8
Min temp °C	7.4	7.0	8.4	11.7	15.9	20.2	23.1	23.2	20.2	16.4	12.0	8.8	14.5
Pressure hPa	1017.0	1015.1	1013.6	1011.9	1010.4	1008.3	1005.2	1006.1	1010.0	1013.6	1015.7	1017.1	1012.0
Precipitation	65.1	51.1	36.8	18.8	10.1	3.3	0.6	0.4	4.6	14.8	43.8	79.6	329.0
Sunshine hour/day	5.4	6.0	7.2	7.8	10.0	11.5	11.5	10.5	9.6	7.9	6.5	4.8	8.2
Avg wind speed m/sn	3.3	3.2	3.0	2.7	2.6	2.6	2.7	2.6	2.5	2.6	3.0	3.1	2.8
Wind direction	W	W	W	W	W	W	W	W	W	W	W	W	

Table 5.2: Kyrenia meteorological indices (1978 – 2007)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
Avg temp °C	12.7	12.6	14.3	17.2	20.9	25.2	28.1	28.3	26.0	22.6	17.7	14.3	20.0
Max temp °C	16.1	16.1	18.2	21.4	25.3	29.5	32.5	32.7	30.5	26.9	21.5	17.8	24.0
Min temp °C	9.1	8.8	9.9	12.6	16.0	20.2	23.2	23.4	21.1	18.2	13.9	10.8	15.6
Pressure hPa	1014.7	1013.2	1011.7	1009.8	1009.0	1006.4	1003.3	1004.3	1008.2	1011.8	1014.1	1015.1	1010.1
Precipitation	103.9	89.3	51.1	18.6	11.7	12.0	2.4	0.6	1.9	23.2	61.0	99.0	475.5
Avg wind speed m/sn	3.0	3.2	2.9	2.7	2.4	2.4	2.3	2.3	2.3	2.2	2.7	2.9	2.6
Wind direction	S	S	W	W	WNW	NW	NW	NW	W	SW	S	S	NW

Table 5.3: Lefke meteorological indices (1978 – 2007)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
Avg temp °C	11.9	11.8	14.5	17.4	21.0	25.9	28.2	28.4	25.2	21.9	18.1	14.1	19.9
Max temp °C	15.7	15.7	19.2	22.6	26.0	30.9	33.1	33.0	29.8	26.5	22.7	18.3	24.5
Min temp °C	8.7	8.4	10.6	13.1	16.7	21.5	24.2	24.7	21.4	18.2	14.5	10.8	16.1
Precipitation	57.7	54.5	41.1	19.1	13.0	4.9	0.4	0.9	3.9	16.2	38.1	60.3	310.1
Avg wind speed m/sn	3.2	3.9	3.2	3.2	3.3	3.3	3.1	3.1	3.2	3.0	3.2	2.8	3.2

Table 5.4: Yeni Erenkoy meteorological indices (1978 – 2007)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
Avg temp °C	11.7	11.9	13.9	16.9	20.8	25.0	27.8	27.9	25.9	21.9	16.8	13.0	19.4
Max temp °C	15.2	15.4	17.8	21.3	25.6	29.8	32.8	32.7	30.4	26.2	20.7	17.0	23.7
Min temp °C	8.6	8.8	10.5	13.2	16.9	21.0	23.9	24.3	22.3	18.6	13.9	10.4	16.0
Precipitation	95.2	72.6	46.8	20.5	10.3	3.2	0.2	1.4	8.0	36.1	66.1	104.5	464.9
Avg wind speed m/sn	3.0	3.6	3.6	3.1	3.1	3.2	3.2	2.9	2.9	2.7	2.5	3.9	3.1

With a land area of 3355 km sq. and a population of just 265,100, North Cyprus has a vast area of land in the hinterland which is suitable for construction of buildings. To this end, the island creates enough space, part of which is occupied by seven (7) tertiary institutions which are built on several acres of land and attracting students from over eighty (80) countries all over the world.

From the perspective of most respondents, the island's historical endowment is showcased in the location of spectacular sites such as the St. Andrews monastery in Karpaz, the Salamis ruins in Famagusta, the Otello castle inside the Famagusta walled city, the Byzantine church in Kyrenia, landscapes such as the Kantara Mountains and thousands of archaeological pieces and artefacts. Also among these is the curious petrified vegetation of the Kyrenia range mentioned by Dreghorn (1979). The coastal zone of the island is endowed with species of flora and fauna that are very unique. Most intriguing of the fauna are the sea turtles *Caretta Caretta* and *Chelonia Mydas*, and the monk seals.

In the words of respondent ZU1 “there are approximately sixteen (16) endemic plant species”. Some of the special plants have the sand dunes as their habitat and include *Medicago Marina*, *Pancratium Maritimum* (sand lily), *Ipomoea Stolonifera*, *Limonium sp.* (sea lavender), *Sinuatum*, etc. Some are saltwater plants such as *Inula crithmoides*, *Salicornis sp.*, *Veya*, and *Halocnemum sp.*

There are some resident birds on the island such as *Larus Audouinii* (Audouin's gull), *Phalacrocorax aristotelis* (Shag), while the island is also a migration path for special bird species that include *Anser Albifrons* (White –fronted-goose), *Pluvialis Apricaria* (Golden Plover), *Wader sp.* and *Italia Albata* which are all winter visitors.

The Karpaz area of the island is also home to the wild donkeys, a proclaimed rare and endemic animal species. XU3 further emphasised this in short words “the main sector is tourism...because we have important resources, we have history, nature, endemics of some flowers and some animals”.

These and many more natural factors make the island suitable for tourism while most of them and the extensive coastline emphasises its compatibility with coastal tourism.

### **5.3 Tourism Profile of North Cyprus**

Tourism destinations are often defined based on the kind of natural resources which attracts use and which creates value to such places. Findings from this study show and as earlier mentioned in the preceding subsection, that the various endowments of North Cyprus attract both domestic and foreign tourist who fall within different tourism profiles such as ecotourism, education tourism, nature tourism (bird watching, sightseeing), casino tourism, cultural tourism, religious tourism, hiking

and coastal tourism. Although this research is concerned with the latter, it is of necessity to point these out because of the change that has occurred in the tourism profile of the island in relation to coastal tourism as perceived by respondents.

The domestic tourism here is characterised by residents who travel from non-coastal towns and villages to access the coast in other areas for swimming, picnics, sightseeing, as well as to experience several activities. Such include residents travelling from Nicosia to Kyrenia, Karpaz and Famagusta; as well as coming from other areas to experience the annual ecotourism festival for which Buyukkunuk is known. This cannot be more emphasised than by YU1 who said “in terms of domestic tourism, Famagusta is the luckiest spot for coastal tourism. In order to use the beach.....most of the Turkish Cypriots from other regions prefer to come to Famagusta.....the yellow sand..... and the water is a good attraction point...no waves”. This view can be linked to the rendition of Bar’Kij which described Famagusta as being with a coast where there are no waves even in the greatest storms (Wallace and Orphamides, 1996).

The study revealed that the island also attracts tourists from countries such as Turkey, England, Germany, Italy, Iran, and Russia. YU2 who is of the opinion that North Cyprus is characterised by both domestic and foreign tourism pointed out the popularity of the ecotourism village in the following words “although ecotourism does not necessarily require that many people coming, yet here it attracts people from within the country” while also of the view that “People come from England, Germany, Australia, Turkey and Holland for the purpose of using the beaches in Cyprus”. Places mentioned by other respondents in addition to these are Italy, Iran, Scandinavians, Gulf states or Arabic countries and Russia.

Most of the respondents were quick to express that North Cyprus is a country in isolation (the island is only accessible by its seaport and one local airport, which is not AITA approved for direct flights) and not easily accessible where it was generally perceived that this limits level of foreign tourism on the island. “.....the reason behind this is because of embargoes on KKTC leading to no direct flights to Cyprus as a result of which flying into Cyprus is very expensive” (WS1).

A consensus among the respondents was that North Cyprus portends diverse tourist attractions and resources around which reasons for visiting revolve, as XU3 is quoted “in our country we have different kinds of tourism....so we have coastal tourism, casino tourism, ecotourism, activities like hiking....”.

### **5.3.1 Coastal Tourism and Casino Tourism**

The tourism profile in North Cyprus is dominated by two of the above listed categories as can be surmised from outcome of this research, where these are: Coastal tourism and Casino tourism. “...there are two categories of tourism in North Cyprus, casino tourism and beach, sea and sand” emphasised by ZU1. Most of the respondents were of the view that most people that visit North Cyprus from other countries were either here to use the beach, sea and sun, while the casino tourism is dominated by tourists from Turkey and a handful from other countries as a side sport from coastal tourism.

Casino tourism was emphasised as a main tourism activity by all, with the exception of three participants who were either silent about it or not fully in support. All the respondents were of the opinion that most of the people who come to North Cyprus for tourism do so for the purpose of gambling. ZU1 who expressed this with emphasis narrated a short story of a repeat visitor to North Cyprus saying “....this

tourist has come here for 13 years...doesn't visit any city except Kyrenia.....they take him from the airport directly to the Colony hotel, he plays in the casino (gambles) and turns back to Turkey, he doesn't do anything else". Another respondent further supports casino as a main tourism function in North Cyprus saying "the second case we have is those who want to do gambling....the main idea is not coastal tourism, it is casino" (WS3).

One thing comes out as obvious, which is the conflation of coastal tourism and gambling or what the respondents repeatedly called casino tourism. One of such pointing views was from XU1 who believes seasonality underlies why people visit North Cyprus saying that they can be divided based on two reasons "during winter.....I believe they come for casino.....during summer, people come for sea, sun and sand.....just to see the sea"; ZU3 said most of the casino tourists also go to the coast or use the beach "if we say....that a large percentage just go to the casino to gamble and never set foot on the beach, it's actually wrong" and is corroborated by ZU2 as ""the main form of tourism that exists in North Cyprus ....is casino... I will say 50% ....they go to swim as well, but the main purpose of coming to Cyprus is...they want to gamble"

### **5.3.2 Coastal Tourism and Other Tourism Profile**

#### **5.3.2.1 Nature Tourism**

Nature tourism is another emerging profile in North Cyprus, especially tourists who spend time on the protected Alagadi beach to watch the sea turtles *Caretta Caretta*, which are mostly unique to North Cyprus coast. One respondent mentioned the Alagadi beach as a very small one "but famous when you consider the sea turtles .....and people go to that region to visit the beach....to go and see nature" (ZU3)

with turtles, we call this turtle beach.....which local people and other tourists ....come and go to” (WS3).

Some tourists also come for bird watching with some of these migrating birds using certain coasts as their transit habitat.

Although not situated in a coastal village ecotourism is being promoted in Buyukkunuk village where this was mentioned by most of the respondents and XU1 said through the annual ecotourism, festival people are attracted to North Cyprus.

### **5.3.2.2 Residential Tourism**

Respondents were of the view that another tourist category that use the coast are individuals who visit North Cyprus but spend longer period of time using the island as a second home of sort, mostly retirees.

ZU2 is quoted about this as follows “...we have a lot retired....people who come and spend long time...3-4 months or even longer and they are a completely different type of tourists....accommodation on the coasts”. Also, with emphatic request to step outside so as to point out some land use XU4 referred to “those buildings right into the sea.....the buildings belong to people from (specific countries), they are residential tourists”.

Also, the seashores of Kyrenia comprises of hotels and other buildings which were homes to a large number of expatriate community prior 1974 and have remained second home for some (Micula and Micula, 2006).

### **5.3.2.3 Historical/Cultural Tourism**

A last tourism function that exists on the island in relation to coastal tourism is characterised by tourists whose interest stems around the various historical and cultural attractions, often surrounding the archaeological endowments of the island.

The island being a product of several civilizations was pointed out by XU1 as having “archaeological pieces from the high sea, maybe from 1000 or 2000 years ago”.

Although at a minimum, this function is only related to researchers and archaeologists whose interest in the coast is in search of links to past civilisations.

Several guide books on North Cyprus present the numerous attractions which link the island with thousand years of history and interesting mix of cultures, with several expeditions that yielded relics found buried deep within and around the coastal area.

#### **5.3.2.4 Transient Tourists**

Another indication by respondents is that North Cyprus is a destination for transit tourists, mainly sailors and merchant ships that moor at the harbour or stop for few days, either to sight see, replenish fuel, and such activities as are available along the coast or in the immediate coastal environment.

Rainer and Schmidt (1991) in their historical account of North Cyprus also described Famagusta as “a halfway house for business men and pilgrims alike” since late 13<sup>th</sup> century.

### **5.4 Defining Coastal Tourism in North Cyprus Context**

A summation from the various descriptions and explanations of all respondents in this study shows that coastal tourism is that kind of tourism that is based on sea, sun and sand; as well as activities for tourists and users along the coast who are attracted to enjoy these resources. The shallow waters that characterises the transition from sea to land on the island, the sandy beaches, rock pools, marshes, sea waves, the numerous life forms on and along the coast, the fauna in the shallow waters, and scenery of the overall coastal zone all combine to form a tourism activity which

respondents collectively termed coastal tourism. The coastal zone was described in the words of ZU1 as “that part of the terrestrial, land which is in interaction with the sea like lagoons, beaches, the sandy beach.....coastal rocks, the pools in the coast”.

To some respondent, coastal tourism is understood as “tourists spending their holiday in hotels, mostly all inclusive.....this is what we have in North Cyprus, this is coastal tourism” (WS3); as put by XU3, coastal tourism “means from my own understanding, the three S – sea - sun – sand....beach tourism....big hotels built on coastal area.....hotels beside the sea using the coast for their own customers and tourists”. A related view came from ZU3 who was quoted as follows “by definition, probably coastal tourism relates to a type of tourism activity and a type of tourism product.....people use the coast, the water, the shoreline and areas along the sea”.

However, a good number of the respondents only gave this definition based on the term ‘coastal tourism’ itself, as most expressed contrary understanding of this tourism function relative to North Cyprus. One such opinion was from XU3 being quoted as saying “coastal tourism basically isn't tourism based right on the sea side.... the way it is understood in North Cyprus is just building very close to the sea.....it shouldn't be right next to the sea”. A related statement was from ZU2 saying

all the hotels that are built along the beach in Kyrenia and all over Cyprus, Salamis hotel, Tukalan beach hotel and all of this, when you say coastal tourism that is the first thing that comes to my mind

These views were expressed in relation to the development accompanying activities which the respondent said characterises this specific tourism profile use of the coast. Other characteristic activities involved in this tourism function carried out in and around the coast without which coastal tourism is incomplete as revealed from the fieldwork include swimming, snorkelling, sunbathing, fishing, picnicking, beach

sports such as surfing, diving, jet skiing, parachuting, angling, boating, etc. as well as use for gambling, cruising, anchoring, dining and winning purposes.

## **5.5 Coastal Tourism Activities – Infrastructural Development**

For coastal tourism to be successful in North Cyprus, infrastructure and facilities have been continually provided relative to the various activities that surround it as a tourism function.

The perception of most of the respondents was that tourism infrastructure on the island are being developed under the context of coastal tourism. Such infrastructures include accommodation facilities in form of different classes of hotels, villas, holiday homes, wooden cabins; transportation facilities and recreational amenities. XU3 and XU1 were of the opinion that a phenomenon surrounding coastal tourism on the island is building big hotels, building for restaurants, for sports activities that can be done at sea, asphalt roads and parking spaces next to the sea as well as shower cabins.

In line with the underlying questions in this work, accommodation is viewed by the respondents as the most important coastal tourism activity on the island most especially building of hotels, resorts and second homes. This activity that supports coastal tourism enhancement is mostly carried out within the immediate coastal area and most often than not closing the transient between terrestrial and marine.

Of interest are the conflicting words of XU2 who was of the opinion that buildings are constructed for tourists use but "...the buildings are built for coastal tourism yet ... they are building not for the purpose of coastal tourism, we are building on the coast but it's for gambling".

WS1 was of the opinion that tourists go to hotels, sometimes villas, duplexes as well as the swimming pools provided by them because they are situated near the sea.

### **5.5.1 Accommodation**

#### **5.5.1.1 Hotels**

In the Kyrenia and Bafra area, it was pointed out that there are lots of 4 and 5 star hotels with large bed capacity, where one respondent said nearly 1500 bed capacity each, two others mentioned 4000 – 5000. A more specific description came from ZU3 that there are over 100 of these 4 and 5 star and ‘non-star’ hotels with combined capacity of 20000 plus rooms.

The study showed that building of hotels and supporting facilities has been on the increase over the last few years which are not unrelated to coastal tourism. Again quoting ZU3 said “I have seen many new hotels, new resorts, new restaurants, new food outlets along the coast” where this is a view shared by several other respondents. Figure 5.1 on the next page shows the concentration of hotels along the coast in Kyrenia region, and figure 5.2 shows an aborted hotel project in Famagusta.



Figure 5.1: Location of hotels in Kyrenia  
Source: Google images



Figure 5.2: An abandoned hotel development along the coast of Famagusta

The Bafra region dedicated to mass tourism is said to be set aside for construction of 18 luxury hotels with 15000 combined bed capacity. Two (2) of these hotels (Artemis hotel and Noah's Ark) are completed and fully operational with ZU1 quoted thus

each hotel has got two thousand bed capacity in the plan there are eighteen hotels ... they are not all functional only Artemis and Noah's Ark are functional..... in the plan there will be eighteen hotels maybe there will be more I don't know (ZU1)

For hotels in other coastal locations where it may be argued that the enterprise might be unrelated to coastal tourism XU1 said “the buildings are close to the sea because tourists come to see the sea..... small three stars or two star hotels, tourists stay there”

In addition to this tourism enterprise is the building of small traditional ecotourism bungalows especially in the eco-sensitive areas like Karpaz area, where thirteen such ecotourism bungalows are located in Dipkarpaz coastal area ranging between twenty

(20) and forty (40) bed capacity; as well as medium sized boutique hotels and ‘bed and breakfast’ (B&B) in coastal villages like Kumyali.

#### **5.5.1.2 Second Homes**

Respondents share the view that private properties also characterise provision of tourist accommodation in North Cyprus. Some said the construction boom that accompanied the Kofi Annan plan negotiation between 2002 and early 2003 saw to building of several luxury villas, bungalows and duplexes mostly within the coastal zone and in some cases right next to the sea. One respondent was very elaborate about how this United Nations intervention influenced building of second home towards enhancing coastal tourism on the island of North Cyprus

When Annan plan negotiation ..... very important, when it started the world thought that, perceived that there was going to be a solution so demand for second homes on the shores increased, so our construction sector and some construction sector from Turkey started to develop villas everywhere even on the shores, and coastal areas. – XU3

This was also pointed out by YU1 as very prominent in the Famagusta area where several villas are built on the coast. This boom in construction of second homes was however expressed as a temporary phase by respondents XU3 and XU2.

One area noted by respondents as having been transformed due to tourism accommodation is close to Bogaz. Prior 1974, on this stretch of coastland were only nine (9) buildings as permitted by legislation, from which the village got its name ‘dokuz evler’ meaning nine house village. This, as obtained from respondents was because further building was forbidden because it was considered environmentally unsafe to use more of the coast.

However, with the development of tourism and borrowing words from XU2 “craze about building houses next to the sea”, it is presently impossible to see the sea from the road “because now you can find 999 houses there” (XU4). Also speaking on the



Figure 5.3: Residential apartments next to the sea (pictures along Karpaz road)

same issue, ZU2 expressed it in more vivid words saying “past Bogaz, you will see houses just built on the shoreline; they open their door and jump into the water in some areas. That is far too close, obviously that is well gone, the environment is well destroyed in my opinion”. This is based on the respondent’s belief that residential tourists are buying these accommodations (above figure gives a glimpse of this).

### 5.5.2 Roads and Utilities

An important infrastructure linked with coastal tourism development on the island is network of asphalt roads, where some respondents implied that access to the coast and the island wholly is recognised as very critical to success of coastal tourism in North Cyprus. WS2 suggested that tourism on the island cannot be good without a good transport system, where this infrastructural (roads) sector directly affects the economy (it being tourism driven)

we are building new roads too ....new roads are to be built, the tourists will be able to access everywhere, every beach with the dual carriage ways ....we make roads so the tourists can travel from one point to the other very efficiently with little time wasted basically....we make tourists to go by seaside and the sea ports

Over the years, government through its ministry of construction has constructed asphalt roads linking places on the island. Some of the roads are dual carriage while others are just double lane roads, where the recent development plan is directed at dualising some of the hitherto single lane roads. Figure 5.5 shows the road construction map/plan of the state which is currently being executed and figure 5.4 shows one half of a dual carriage road parallel to the sea as well as an on-going development project with water being channelled from the sea (right).

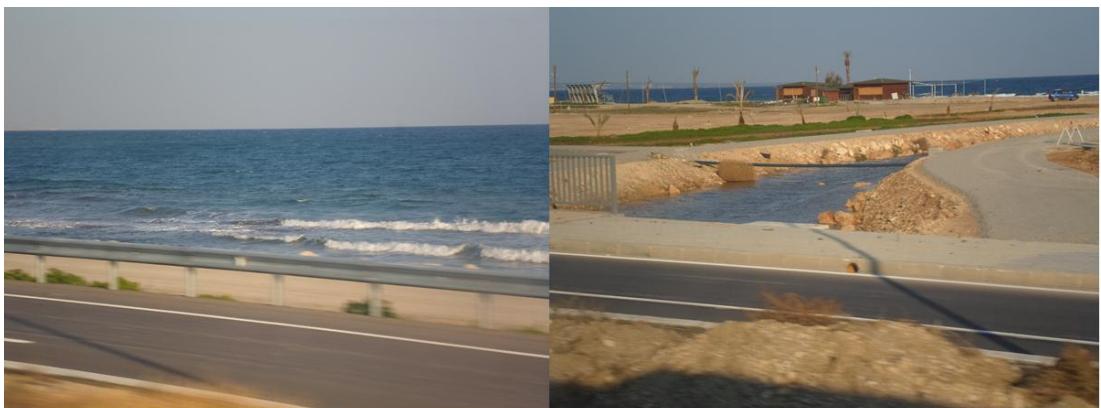


Figure 5.4: Infrastructures close to the sea

Some respondents however have reservations about this necessary infrastructure with two excerpts captured below expressing individual discontent

as infrastructure, we need roads, but some roads are by the sea.....for instance in Karpaz area they built big roads (dual carriage), we don't need that road, we need roads but not those big roads....so you have to plan roads properly according to your tourism product – XU3

Some of the roads are too big for us, before, it was so good to travel the small roads in nature. Then they start to build motorways from Kyrenia to Dipkarpaz, by the coast, and then they cut down a lot of antique olive trees just to build the road. Tourists are using the roads, so it's also an impact of coastal tourism – XU4

Other utilities include sports facilities, swimming pools, shower cabins and parking spaces. A specific example mentioned by XU1 is Glapsides beach, where parking

spaces are laid with asphalt next to the sea, “they put asphalt on the beach; they are killing natural life by putting asphalt road there”. Yet the same respondent was quick to point out the convenience some of these utilities afford people especially, being



Figure 5.5: Plan of existing and on-going road networks in North Cyprus

able to move from shower cabins to your car without getting dirty. Most respondents also were of the opinion that constructing swimming pools by the sea side is not a necessarily acceptable utility. An example was given in the case of a particular hotel which removed rocks from the beach to create a natural pool right on the beach.

## 5.6 Coastal tourism and its effect on Landforms

A review of data on the landscape of the island showed that the sandy beaches evolved over many years from several marine processes most especially weathering of calcarenite rocks and caves that characterise the coast of North Cyprus. These coastal landforms have resulted from centuries and over quaternary of uninterrupted interaction between the coast and sea (Dreghorn, 1971; 1979; Hill, 1949; Stavrinou and Bears, 1963). Some of landforms mentioned by some respondents included sand

dunes, coastal cliffs, rocks, caves, pools, marshes and wetlands. Figure 5.6 shows some landforms that are common to the coast of North Cyprus and peculiar to the Mediterranean. Figure 5.7 further shows an island in the process of formation at 5mile beach (left) in Kyrenia area as depicted by Dreghorn (1971) and weathering down of calcarenite rock into fine sand in Bafra as at date.

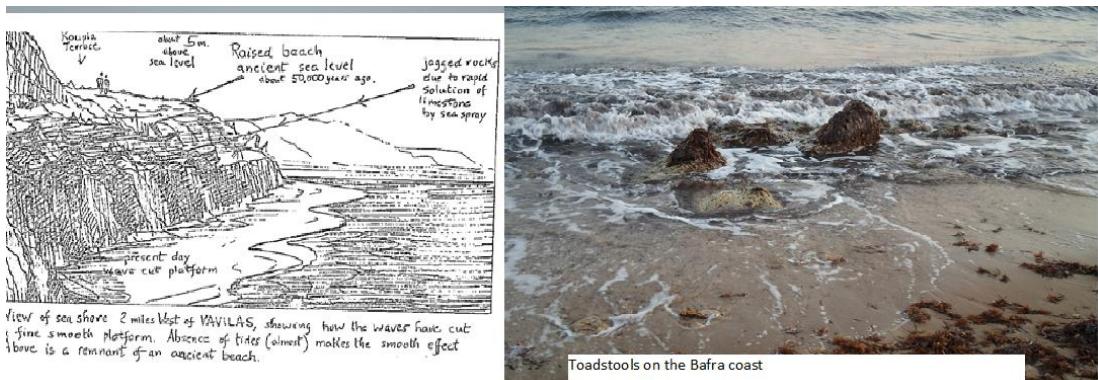


Figure 5.6: Coastal landforms of North Cyprus

Notice also that Figure 5.8 shows two beaches to the west of Kyrenia between the shore areas from Alsancak to Zeytinlika. As at the time of this study and as can be seen from figure 3.4 only one beach appears within that coastal stretch, what is to be seen are buildings.

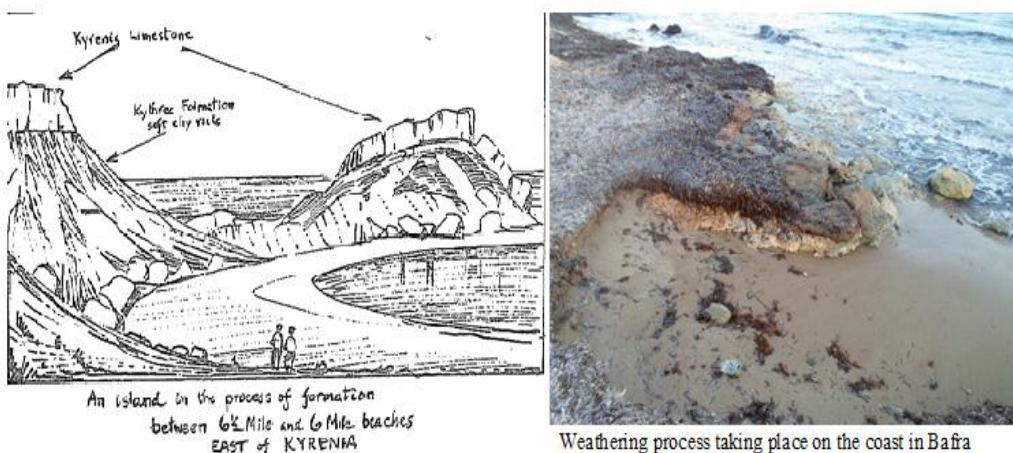


Figure 5.7: Formation of two coastal landform in 1971 (left) and 2012 (right)

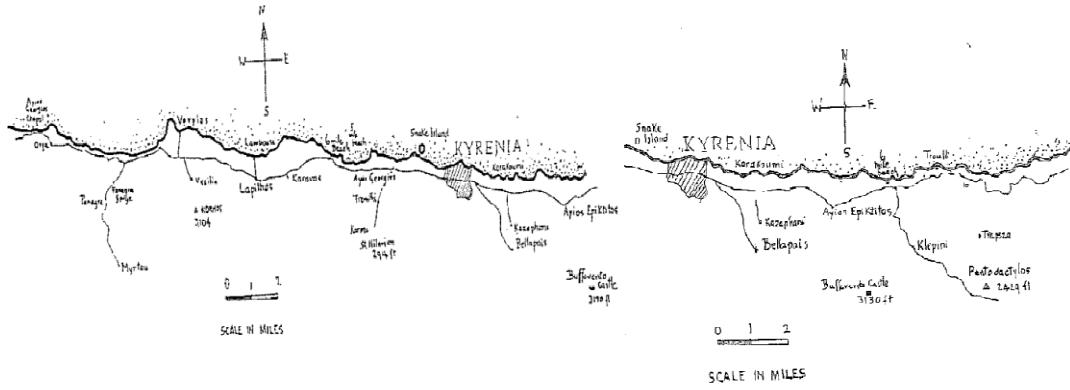


Figure 5.8: Kyrenia coast depicting two beaches –west and east (Dreghorn, 1971)

With the attractive scenery and unique characteristics of these geological features that give the island its shape, the height of the sea tides around the island is often low when compared with some other small islands, resulting in calm waters along the coast (Dreghorn, 1971).

Summing from the views of the research respondents, the coastal landforms are fast running out of existence as a result of construction of buildings around and along the coast. ZU1 responded that some of these landforms have been adjusted to support building of hotels and to satisfy the need of customers of such hotels either through outright removal of the rocks or by covering them with concrete.

Chatalgu, a village close to Kyrenia, .....totally devoted to mass tourism ....this coastal zone is totally lost.... they used concrete... it was in the past rocky ... there were small beaches and between the beaches there were rocky parts they built houses....hotels on these rocks close to the sea

ZU3 bitterly said the beaches that were there while growing up are no longer there. Supporting this and as gathered from XU4, about 2 years ago, there was a Lopda beach along the coast in Kyrenia but today, the beach only exists in name; also, a very important coastal sand dune located in Bafra was removed at the commencement of construction work on one of the hotels. Figure 5.9 depicts the same beach with the left showing the natural form of the beach while the right shows

a complete transformation of the beach with no single coastal rock but only a stretch of sand up to the pavement of an hotel where a sand dune was removed years ago. XU2 while bemoaning the continued threat to the “very narrow sand dunes which is endemic to North Cyprus”, spoke of the loss of two distinct landforms attributing this to building as a coastal tourism function

A marina was built in Karpaz, there used to be a cave with foxes there, but now it's gone. There is another one right next to the marina, there is supposed to be a nude beach there..... they built a holiday resort there, they abandoned it. There is only just 2km between these and you can just see them, both of these have disappeared. ....All of the hotels in Kyrenia, they were all natural beaches, Bafra touristic centre, is lost



Figure 5.9: Two sides of the same beach in Bafra (closer view from insert)

## 5.7     **Changing Landforms and Sea Waves Movement**

This continued shaping and reshaping of the coast as well as loss of landforms is perceived by respondents to have effects on the sea waves process around the coast, such that some formations are either being hampered or entirely being cut off. One such view came from XU2 who said the mangroves that are being replaced with buildings might have beneficial effects in absorbing waves coming from the sea where such landforms could stop tsunami from reaching the island.

WS1 broadly stated that from a meteorological point of view, those buildings close to the sea can cause damage to the waves, and WS3 also maintained that this has negative effects for the winds and obstruct the wash of sea waves inland.

In consonance with the views of these other respondents, XU4 sighted an example saying “the sea waves is changing, when it comes (referring to waves) it has to use about 10-20m to land but when you build there, it stops the waves that means the sea will have to go back.....when they build on the coast you lose the coastland and the things that use the coast”.

Another example sighted was from ZU1 who said one of the big hotels in Kyrenia constructed a shelter on the coast and it changed the currents and that part of the zone is losing its beach “it damaged the waves system and now it is going bad... because there is current and the sand is moving, there are many natural processes happening here, when you do something there you change the structure”. A similar example given by this respondent is in Kuzey evler region where walls were built close to the sea, with waves action in two (2) years, the sand and beach is lost leaving behind only rocks.

Another finding to support these views is on the coastline within Famagusta region, one of the hotels built right next to the sea blasted the rocks on the beach and created an artificial sandy beach to support its development (refer to figure 5.2 and 5.9), with continued wave action, there has been a continued sand importation to sustain what is left of the sand beach which is gradually being claimed by the sea (notice evidence of wave action in figure 5.9).

## **5.8 Ecological Transformation as a Result of Effect on Landform**

Responses obtained from the interviews pointed at what kind of ecological changes and transformation the coastal areas of North Cyprus have experienced over the years, as a result of changing landforms resulting from activities that support coastal tourism. The most mentioned activity for which the structure of the coast has been and is being changed among others is building of hotels and other forms of tourist accommodations. This activity is considered as to have generated series of responses from the surrounding plants and animals for which the coast is a habitat. In the opinion of WS3, transforming the ecosystem is unavoidable in order to build hotels. Some other respondents suggested that the changes made to the coastal structure and the coastal area so as to build these hotels have resulted in immense changes in the ecosystem of the coastal area at large. Several quotations from the respondents will help express this better, rather than constraining their words for presentation. Below are excerpts from the different segments:

these rocks are natural habitats for many species, so when they used concrete to build their houses....there is a very huge habitat loss .....the beach is used by sea turtles, they come to lay their eggs on the sand,. ....they build this big concrete hotel on that endemic species, they cut the trees... plant species, animals living ..... using the beach ....10 years ago, there were nests, sea turtle nests, ....now there is no beach (ZU1)

some roads are by the sea, so it also affects turtles and animals.....hotels made our coasts not suitable for animals, turtles stopped coming everywhere; there were white lilies in the open, but you never see them anymore (XU3)

These are but some of the effects on the flora and fauna ecosystem which respondents perceive have resulted from changing the coast of the island. Related to this was also the view of some respondents that degrading the coast either by adjusting the structure of the coast or introduction of foreign members to the

ecosystem has resulted in further transformation of the natural ecosystem of the island as the words of the following respondents express

Akapuku village, there are no more turtles there because they built big hotels on the beach.....changed nature there and they brought trees, palms from other countries and planted them....claimed all the beach, killed the flora, killed all the snakes (XU4)

it will change the plant life straight away, I don't think those wild flowers, plants which used to come out will come out anymore because it's not the type of soil that they grow on (ZU2)

In addition, XU2 while discussing the effect of changes to the coast and coastal landforms leading to loss of sea turtles and flowers, mentioned that some species of birds that used the North Cyprus coast as transit habitats are not seen any more as shown in excerpt below

those geese, they used to come to Cyprus but haven't been seen since after 1996 because there have been a lot of development on these wetlands and so on, ..... but now they have stopped coming

An unknown number of floras which were unique and common to Cyprus are increasingly becoming extinct and endangered as suggested by Sfikas (1993) "mainly due to drastic changes or complete destruction of habitats over the past three decades especially along the coast".

All these indicate the diverse environmental influences that revolve around degrading the coastal land as a result of coastal tourism, as obtained from diverse and mutually exclusive views expressed by the respondents.

A different dimension of the effect of coastal tourism activities in relation to other functions especially historical tourism was pointed out by XU1. This respondent cited the example of a major hotel which "when they were building.....the hotel, the machine digging up the soil hit the historical/archaeological pieces.....in the depth of

the soil ....the coastlines". Pointing out how developing coastal tourism is negatively impacting resource base of historical tourism, herein connections to past civilisation.

## **5.9 Coastal Tourism Planning and Politics**

Of interest in the case area is the independent yet consensus agreement by all respondents that there is no planning framework for tourism development in the island, of which coastal tourism is a major function. There exists an old development plan dating back to the early 1960s before the island was divided politically.

### **5.9.1 Planning Tourist Development in the 1960s and the Present**

Regional studies including three (3) regions in North Cyprus were conducted in early 1960s within cooperation between the Central Society for Territorial Planning, Ministry of Foreign Affairs, Republic of France and Tourist office, Ministry of Commerce and Tourism, Republic of Cyprus.

The three regions proposed for development were Kyrenia, Famagusta and Karpaz taking into account their coastal nature as well as the individual landscape of the areas.

#### **5.9.1.1 Kyrenia Region**

Kyrenia region which stretches from Kormakiti to Dhavlos features a mix of topography, where Kyrenia town though lacking a good sandy beach yet characterised by cliffs and caves, creating a natural harbour. Based on this characteristic, the coast of the town was proposed for tourism development activities to include recreation and sports amenities. These however were to be grouped around the harbour with accommodation created from conversion of some of the old houses into medium sized hotels. The foot of the dunes backing both the sandy bays of Pakhy Ammos as well as the rocky headland of Alagadi were proposed for one or two class hotels with chalet (500 – 1500 combined bed capacity) as well as a holiday

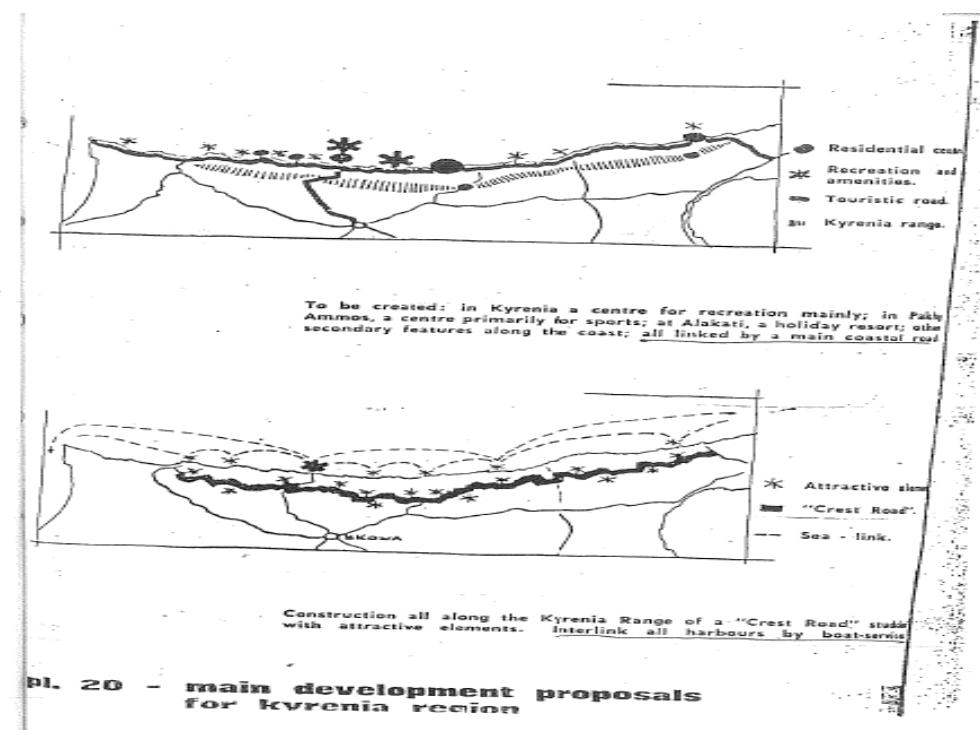
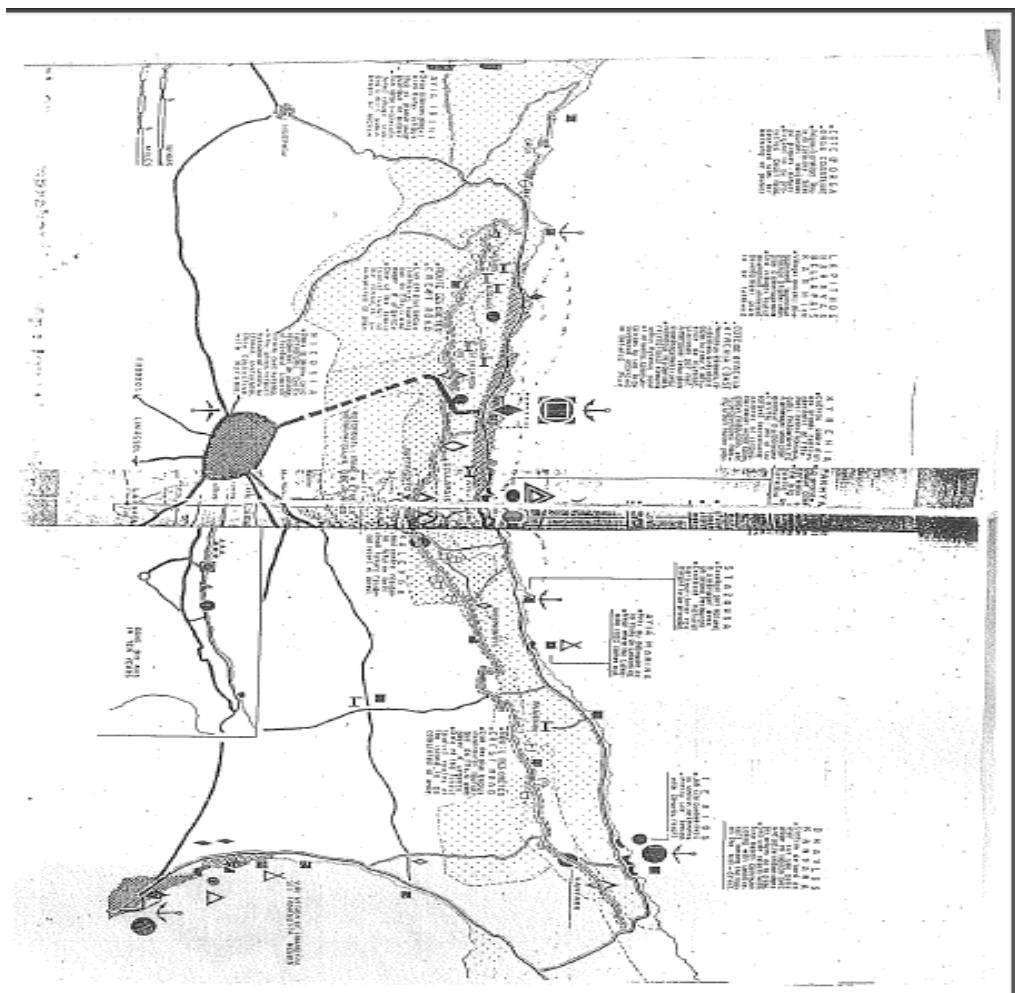
resort and public beaches, but under strict rules. It may therefore be inferred that this belies the views of respondents about Kyrenia been set aside for mass tourism.

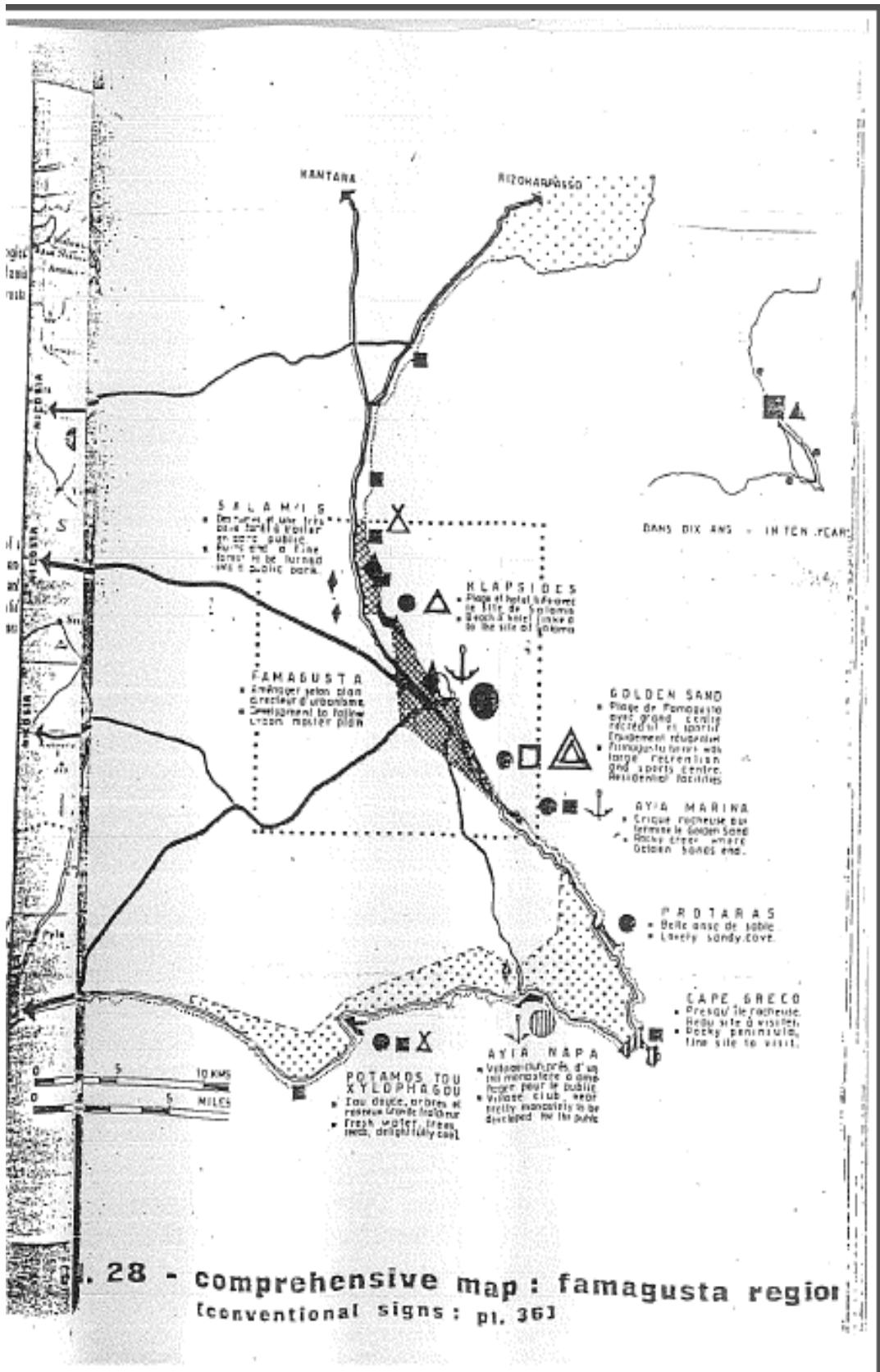
The proposal however stated that the areas from Orga through Kormakiti as well as the stretch from Alagadi to Dhavlos were to be protected from development of all kind saves as public beaches. Gathering from the interviews as presented in previous subsections indicate that the existing developments are nowhere comparable with the provisions of the above, where most of the dunes have been removed, caves and cliffs cut into and beaches not existent or narrowed into small strips with the exception of the Alagadi beach. A map of the proposed development is shown on page 80.

#### **5.9.1.2 Famagusta Region**

The town of Famagusta within this region was proposed as the major destination for transient and resident tourists based on its characteristic as a major port. With the coast of this area characterised by its extensive sandy beaches, alternating creeks and high cliffs, touristic development along the coast was to consist only of a road skirting these landforms. The entire coast was assigned as a building prohibition zone, requiring an enforcement of regulations against any building between the road and sea (refer to page 81).

Referring to the various expressions of respondents concerning location of hotels and second homes stretching through Famagusta to Iskele towards Bogaz both on the coast and into the sea, indicate otherwise.





### **5.9.1.3 Karpaz Region**

A continuation of the Kyrenia range and a region in isolation, proposed development activities were to include a single holiday resort on the sandy beach of Pakhy Ammos (2 ½ miles long and 150 yds wide) and several small hotel units on the north coast which is characterised by strips of dunes and steep cliffs plunging into the sea in most places. The south coast was to be reserved under protection (refer to the next page).

Respondents believe DipKarpaz has remained under protection while few coastlines were built on in such places such as Kumyali with resident tourist homes located right into the sea, yet compared with the other two regions, coastal tourism in Karpaz has not been characterised with the same kind of accommodation, but rather eco-friendly chalets and cabins. However it is a region under threat with the ongoing debate on conservation or mass development around Golden beach; and with the actions of environmentalists, two construction firms have been stalled from continuing work of some huge buildings. In addition, respondents were of the opinion that there exists a law that request that there should be benchmark of at least 100m between the coast and any building, where implementing this law has not been the norm on the island. This grants support the argument by Burby (2007) that plans are only as good as when implemented, save that in the case of North Cyprus there is no physical plan guiding this law.

### **5.9.2 Governance and Planning through Politics and Isolation**

However, with the political divide, this plan as well as such related laws are barely implemented or practiced on this side of the island, although, some establishments are in conformance with this standard from respondents' views. They believe that most of the activities surrounding the coastal tourism function of North Cyprus have

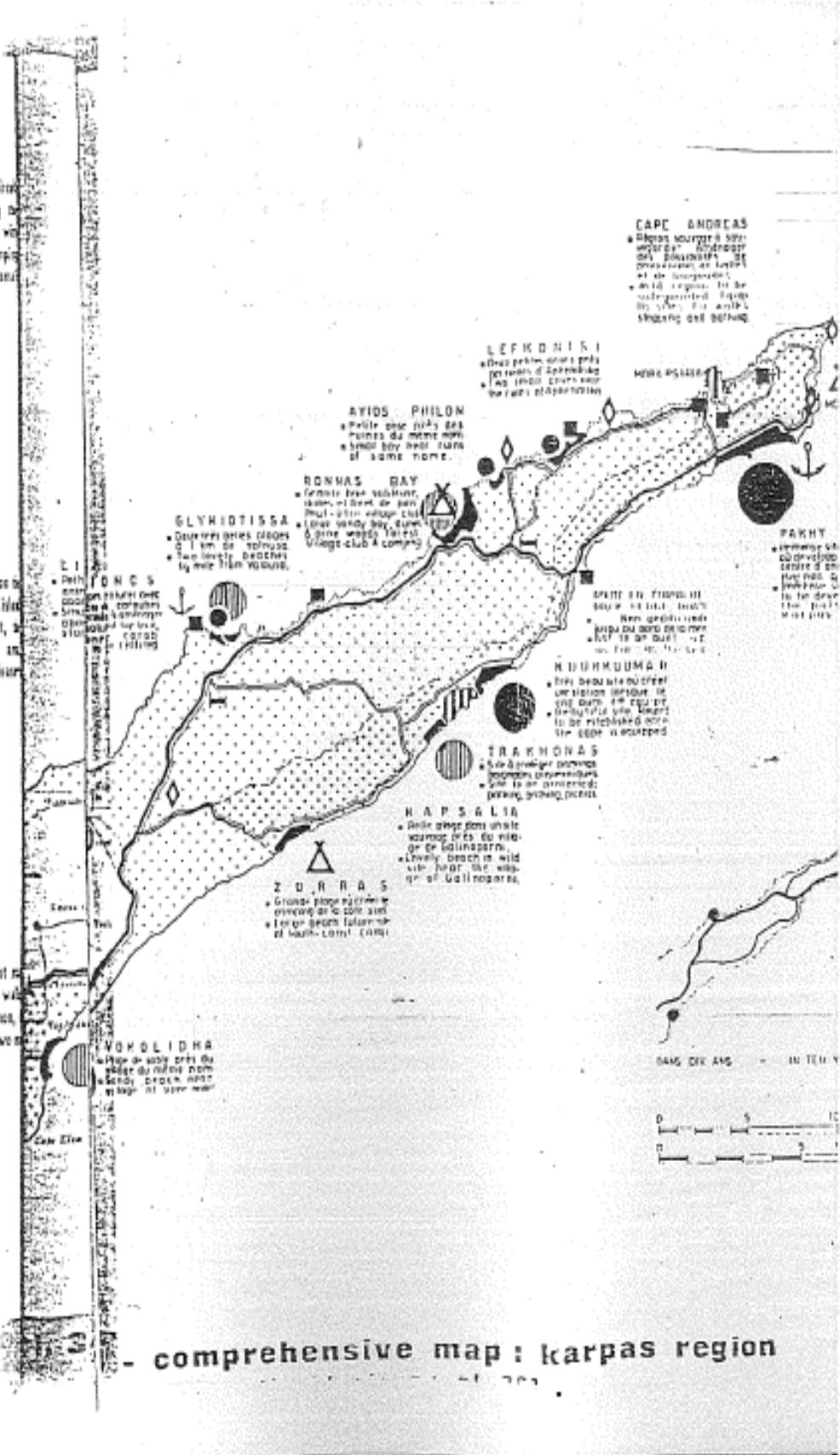
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Fig. 3

- comprehensive map : karpas region



been without any regulation and in most cases based on sector and/or political interests. Of particular interest is the absence of a clearly defined coastal zone management system which ZU3 insists is the fundamental basis for incompatibility of these supporting activities with the tourism function. Summing up a number of influences, the respondent is of the view that

first we have to designate coastal zones and then define the coastal zones..... some of the coastal zones are affected by development of second home projects ... some by tourism and tourism activities and tourism related development... as far as I am concerned, they don't have clearly defined coastal zone management system

In the opinion of WS3, the absence of a common plan has resulted in ministries and municipalities taking land use decisions as they deem fit without recourse to how it affects the environment, especially along the coast. YU2 using similar words with some other respondents felt that there is no policy about building projects as well as lack of a tourism master plan, where this is a problem not only for coastal tourism, but the country as a whole. XU1 also suggested that there is need for regulations, following good policy and a tourism plan, without which the present situation will persist. As such and in relation to these views, YU1 believes that "if regulations are not proper, the impacts will definitely be negative" where these activities continue to accompany coastal tourism.

One such influence mentioned is related to land use decisions as reflected in the conflation of coastal tourism and casino tourism activities with specific reference to hotel construction. Some respondents feel that rather than build these hotels which end up serving casino tourism function on the coast, regulations should be put in place to have them built near the airport or in the desert but far away from the coastal areas. The result of this unregulated development is believed to be changing the

tourism profile of North Cyprus as suggested by ZU1 and YU2 who feels that these hotels and concepts are for casino and conference groups. YU2 backed this up with reference to statement by some tourists' complains saying

Normal tourists.....ask, why are you building these ugly buildings on the coast, you are killing the sand, the flora the fauna, everything on the coast and that is why the tourist profile is changing in North Cyprus. And these buildings when built on the coast.....are changing our economy and tourist profile not only environmental changes

A twist to the situation of North Cyprus is not unrelated to its isolation and political non-recognition as an independent State (Michael, 2009; Mihci and Karaman, 2009), as a result of which most international regulations especially on coastal environment are not bothered with or given consideration when building or taking land use decisions relative to the coastline or other areas at that. WS3 and XU3 believe there is a capitalistic twist to building and construction, especially due the country's non-recognition, political situation and dependence on another country for money. As such, foreign investors only need to identify areas that interest them from maps or even the internet, and with the right influence in government they are given the land and allowed to build where and how they choose.

North Cyprus as an unrecognised country makes investment risky with a five star hotel requiring up to 65million euro (XU3), hence these investors who know the weaknesses in government build structures that will reward their inputs while protecting their stakes. Data sources claim that it cost about 80million euro to construct one of the existing five star hotels (Michael, 2009).

In a way related to the above, WS2 believes that the situation of the country calls for some trade-offs, hence a need to commercialise the coastal tourism resource for

economic benefit, saying “there is some impacts to the environment but this is the trade-off...we have to have some kind of plans not to damage the sea”. Such responses from the respondents indicate a reasonable level of environmental awareness with several suggesting that coastal tourism activities (human factor) are mostly responsible for the coastline degradation rather than natural processes. Two such comments are captured as presented below

the building as far as I understanding is taking more because it's not natural. The sea action is normal, as far as I know from the books, but the other one is artificial; it is the buildings that is negatively affecting the coast – XU3

the areas touched by human have more rapid changes than the nature changed places, more dramatic change, but if you put that in proportion of the whole of the coastal region in Cyprus, .....the human change is worse ... now you build concrete walls just on the beach ... we made it smaller– ZU2

# **Chapter 6**

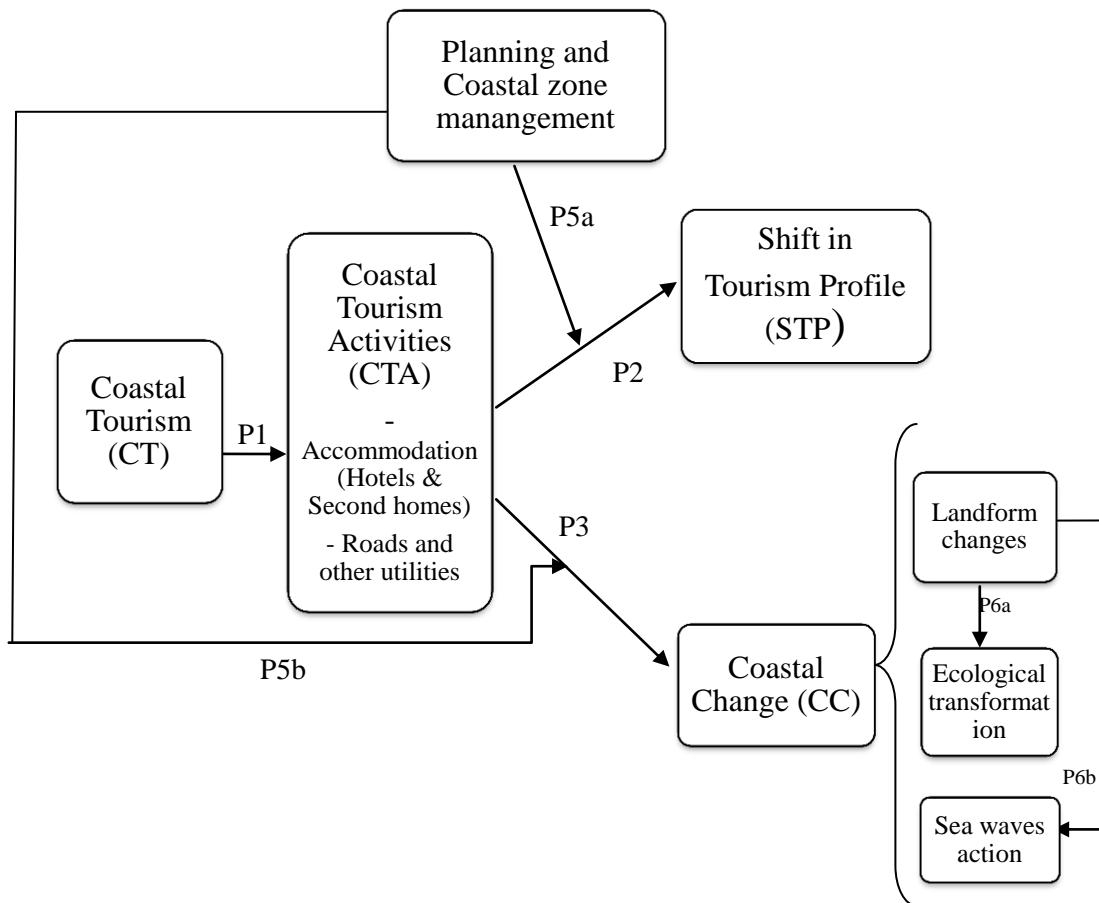
## **RESULTS AND DISCUSSIONS**

A review of diverse, related and/or different opinions from responses as put together in the previous chapter was critical to knowing if the questions highlighted at the beginning of this research had been addressed, to what extent the questions had been answered and additional knowledge/variables that emerged there from.

Based on these findings eight dimensions emerged from which the revolving issues were addressed. Table 6.1 shows summary of these themes and sub-themes while data structure from coding matrix can be seen from the appendix.

Table 6.1: Summary of findings

S/N	Categories	Sub-categories
1	Tourism endowments	
2	Tourism activities	Relating coastal tourism with the other tourism profiles <ul style="list-style-type: none"><li>- Coastal tourism</li><li>- Casino tourism</li><li>- Residential tourists</li><li>- Nature/ecotourism</li><li>- Transient tourists</li><li>- Historical/Cultural tourism</li></ul>
3	Defining Coastal tourism	
4	Coastal tourism functions	Accommodation <ul style="list-style-type: none"><li>- Hotels</li><li>- Second homes</li></ul> Roads and utilities
5	Coastal Tourism and Landforms	<ul style="list-style-type: none"><li>- Beach loss/restructuring</li><li>- Changing landscape</li><li>- Landform processes</li></ul>
6	Action of sea waves	
7	Ecological effects - threats	<ul style="list-style-type: none"><li>- Sea turtles</li><li>- Endemic plant species</li><li>- Endemic bird species</li></ul>
8	Coastal tourism, planning and coastal zone management	



P1: Perceptions about CT has an influence on CTA

P2: CTA has a direct effect on STP

P3: CTA has a direct effect on CC

P4a: CTA mediates the relationship between CT perceptions and STP

P4b: CTA mediates the relationship between CT and CC

P5a: Planning and CZM Moderates the effect of CTA on STP

P5b: Planning and CZM Moderates the effect of CTA on CC

P6a: Landform changes has an effect on local ecology

P6b: Landform changes has an effect on wave action

Figure 6.1: Research model based on perceptions of the respondents about coastal tourism

The findings from this study based on the perceptions of respondents representing different categories of stakeholders yielded several yet related dimensions of environmental understanding and behaviours which have been of great influences on the surrounding coastal area of the island. As shown in Figure 6.1 nine (9) propositions evolved from these findings where each becomes evident as the findings are discussed further.

## **6.1 Perceptions about Coastal Tourism, Coastal Tourism activities and its mediating role**

It was suggested that coastal tourism may actually be practiced in different ways depending on how it is understood in the destination which has sea and coast as tourism resource. This understanding often helps to shape the way this tourism function is defined in the context of destinations such as the island of North Cyprus. Resources in any geographical area often define the character of such places, helping to shape activities which are carried out for the socio-economic benefit of the populace. It is not disputable that tourism as a human activity is dependent on the various environmental endowments nature has bestowed upon a place, where Mediterranean islands are renowned for their alluring weather conditions underpinned by abundance of sunshine and varying coastal features as tourism resources. Such is the case of North Cyprus a tourism destination on which the findings of this study is in agreement with the numerous works that describe it as having Sun, Sea and Sand in abundance.

North Cyprus was found in the view of respondents to be characterised by six (6) tourism profiles namely Coastal tourism, Casino tourism, Residential tourism, Cultural/Historical tourism, Nature/Ecotourism and Transient tourists, where the first three are most the most dominant. Coastal and Nature/Ecotourism are the two (2) forms which can be said to be directly based on the ecological and morphological endowment of the island while the others revolve around socio-cultural resources.

North Cyprus was presented from the views of various respondents as a destination for coastal tourism activity where visitors either from within or outside the country

make use of the coast and its landforms for diverse range of activities such as swimming, diving, fishing, boating, gambling, winning and dinning, etc. This use of the coast revolves mostly around tourists who spend their holidays in big hotels or those who stay longer in second homes, both built beside the Sea. Hence, Coastal tourism on the island cannot be defined without first referring to those buildings that are erected within the coastal zone, mostly for accommodation. This definition with the exception of gambling, winning and dinning can be said to be in alignment with Hall's (2001) concept of coastal tourism. The absence of activities that are carried out further into the sea from the findings suggest that there is clear distinction between the concepts of coastal tourism and marine tourism, where this is in variation from that suggested by Orams (1999), which continually used marine and coastal tourism interchangeably.

The inclusion of accommodation as an underlying activity in coastal tourism was revealed as being critical to the shaping of tourism on the island. Of importance is the finding that the construction boom of the early 2000 brought about an increase in the number of houses built on the coast (mostly on the beach right next to the sea) to serve residential tourists, either as rented villas or second homes. Most of these tourists come from England and Germany to spend some months within the year to use the beaches and bask in the sun during the long summer months or to enjoy the mild and sunny winters of North Cyprus.

A glaring evidence of this development is most visible in the village of Dokuz evler on the coast between Famagusta and Bogaz. Building in this area was restricted to only nine (9) houses due to environmental sensitivity of the coast there (CTDP, 1960). As at the time of this study, with development of accommodation for

residential tourists in conformance with coastal tourism and “craze about building houses next to the sea” (XU2), this study shows that there are at least 999 houses on the same coast (XU4), built right on the shoreline (ZU2). This rave for building on the coast although not in the same spate as the early 2000, is still going on today with construction of commercial estates ‘site’ along the coast of the narrow strip of Karpaz by some companies.

A major concern is the number of large and medium sized hotels that have been built and are still being built on the coasts in the name of coastal tourism, where choice coasts are being converted to private capital all around the island. Although there is no literature defining exactly what kind of hotels should serve coastal tourism, this study showed that tall luxurious hotels ranging from 1500 to 5000 bed capacity have been built on the coast in places such as Kyrenia, Famagusta and Karpaz (especially in Bafra) areas. In the plan for the Bafra area, segment 1 respondents suggested that it is expected that eighteen luxury hotels shall be erected in that coastal zone where two of these are presently fully operational. This is in contrast with the suggestion of Michael (2009), who put the number of expected developments at twelve (12), while Besim et al (2010) reported eleven (11).

This study revealed that these huge hotels serve as gambling houses and accommodation to casino tourists rather than those categories of tourists who are basically interested in sea, sun and sand. A visit to almost all the hotels situated on the coast of Kyrenia as well as those hotels in Bafra is enough to corroborate this suggestion made by the respondents.

Since this is the case, can it then be said to be a right land use? Respondents' answer to this was no, because they believe that coastal land is being used in a manner that is considered incompatible with the environment and jeopardizing the sustainability of the coastal zone of the island. Some respondents called these hotels "big ugly buildings" and another regarded them as incompatible to the overall identity of the island.

Findings also revealed that with these scale of hotel buildings, Casino has evolved over the last two decades as a major alternative tourism function in North Cyprus (Warner, 1999). This finding lends support to contents of Cayman island NTMP 2009-2013 on how new tourism profile can evolve over time based on what motivates tourists to a destination. This emergence also supports suggestions from researchers that destinations without natural resources can develop alternative activities as tourism attractions; while on the other hand defying the dependence of destinations on natural resources of sea, sun and sand which often define the tourism function of most island destinations.

Access to tourism resource areas is very critical to successful tourism as suggested by Larson and Poudyal (2012) such as beaches and other coastal landforms as shown by respondents through availability of good road networks. However, the development of this infrastructure in North Cyprus was questioned by many of the respondents, where it was unanimously said that some of the roads are not suited to the island in terms of size. Some mentioned that dual carriage roads by the sea are not necessarily compatible with land use of areas such as Karpaz. However, two respondents from the same segment were of the view that the present road

development plan is very necessary as well as upgrading the airport for increased traffic carriage.

Integrating these findings with Burns' (2004) opinion on development of tourist facilities and WTTC (2011) suggestion that in many destinations an understanding of dependence of tourism on the environment often underlies sensitivity of environmental behaviour towards tourism development, has led to the first proposition:

*P1 People's understanding of coastal tourism induces negative development of coastal tourism activities in a small island*

Findings showed that these activities have collectively created a chain of influences on the landscape of the coastal zone, where these influences may portend several consequences for today, decades and in some cases centuries to come, most especially where localised morphology is concerned.

One of such influence is coastal change, where an academic respondent put this in terms of coastal degradation, defining it as 'any change from natural' form of the coast, while giving example of Kuzey evler and Kyrenia area where numerous houses and hotels have been built on the coast and beaches. Further suggestions include removal of beach sand and rocks, changes in soil structure, cutting into the coastal cliffs, destruction of peculiar sand dunes which has led to habitat loss for local and some visiting species, felling of antique olive and carob trees in the coastal area, destruction of sea turtle nestling, loss of endemic flora, disposal of concentrated residue from desalination works into the sea, influence on *longshore* wave action and pollution.

Based on above discussions as well as from suggestion by O'Connell (2000) that "human activities have now become an integral part of the environment as well as of Orams's (1999) suggestion that coastal tourism by itself may not be accountable for the several impacts on the environment often associated with it, propositions 3 and 4b emerged as:

*P3 Development of coastal tourism activities such as accommodation, roads and other utilities induce changes in the coastal area of a small island*

*P4b Coastal tourism through its supporting activities (accommodation, roads and other utilities) induce changes to the coastal area of a small island*

This influence on the coastal area is further discussed, as individually sub-categories fall within different geographical characteristics.

## **6.2 Landform Changes**

The landforms of 5 mile, 6 mile and 6 ½ mile beaches today can barely be recognised neither can they be compared with what they were 30 years ago. The entire over 80km shoreline of the Kyrenia area is presently laden with immense amount of concrete representing the large number of hotel buildings of various sizes. Some of the jagged rocks and cliff surfaces had to be removed to make the coast more suitable for construction and amiable for tourist use example is shown in figure 5.3 and figure 5.9 along Famagusta and Bafra shores.

Nordstrom (2000) while highlighting the varying degree to which landforms are affected by human activities suggested that coastal landforms like beaches and dunes are often reshaped or completely eliminated to allow for various uses among which are the buildings, roads as well as for recreational utilities which emerged from findings from this study.

Findings also showed that some beaches only exist in name at present, where Lopdah beach is one such. Bafra area which once boasted some of the finest beaches as indicated by Michael (1999) is shown in the findings of this research as presently a shoreline of four huge concrete hotels with more such hotels expected to be developed in future except there is an intervention of some kind of prohibition or change in government policy. These findings confirm the fears of Dreghorn (1971) about the spoiling of the scenery of the place with masses of concrete.

Sand dunes act as barriers which help to maintain balance of waves and storm processes within the coastal area while also acting as habitat for some plants which help to stabilise the dunes. Coastal dunes were found to be victims of building in the coastal area in North Cyprus, where these are being modified either by outright removal or cut into, such as in Bafra.

Hyndman and Hyndman (2005) suggest that removing dunes to build hotels or building as findings in this research show may be said to eventually upset the coastal system and as such when the storm is high in winter, it brings the beach closer inland. It is of importance to note that some of these consequences which have not been taken into consideration in North Cyprus in the development of hotels take time to build up, yet their effects could be very dire when manifested. These activities may portend a hindrance to the natural process of land formation where Newman (1953) was of the opinion that the island of North Cyprus is still being fashioned in a continued chain of attrition and deposition.

The perceptions of respondents about human activities influencing the coastal system in North Cyprus as seen in such places as Iskele, Bogaz and Kyrenia, bears support

for the suggestion by Nicholls et al (2007) on the significance of human impact in heightening the natural coastal processes.

O'Connell (2000) is of the view that landforms are unique to geographical locations, where these function together with the other natural features and processes to create a balance for such places. In line with this, it may be put forward that the continued manipulation of the coast and coastal landforms of North Cyprus so as to allow for building hotels, second homes as well as roads may have created some imbalance in the coastal ecosystem on the island of North Cyprus.

Two prominent evidence of this imbalance based on findings of this study are related to ecology and wave action which also are aligned with Nicholls et al's (2007) view that human activities often interfere with coastal ecosystem services where this often is manifested on both coastal and near shore marine habitats.

### **6.3 Ecological Influence as Evidence of Human Changes to the Coast**

The coastal landforms of North Cyprus serve as habitat to numerous fauna and flora life forms, where some of these species are either endemic to that location, North Cyprus and/or Cyprus.

#### **6.3.1 Sea Turtles**

Of the 2437 sea nesting activities observed by MTRG in 1994, 980 were from North Cyprus, accounted for by logger head turtle - *Caretta Caretta* (519) and green turtle - *Chelonia Mydas* (461) two regionally endangered species of sea turtle which nest on the beaches of the island. North Cyprus has continued to be a very important place where Mediterranean turtles are concerned and this is made evident in the regulations

and protection of the Alagadi beach which is famed for these two sea turtle species as well as Golden beach. Findings from this research show that the adult female returns to the same beach every nesting season (once every two to five years), it is very important that the beach be available whenever the turtles return for procreation where this also is an argument by MTRG. However, with the building of hotels and houses on these beaches in North Cyprus, less space is left for the turtles to breed. Findings indicate that sea turtles were previously commonly seen on the many beaches of North Cyprus, but in a place such as Famagusta, such sighting is becoming rare, though Micula and Micula's (2006) suggestion that those females of both sea turtles come to lay their eggs in the Famagusta bay.

Like Bafra coast where breeding is evidently impossible with so much concrete and artificial lightning, findings also showed that the coast of Akapuku village used to be a nesting ground for turtles, but this area is definitely not one of the two beaches reported under the monitoring activities of MTRG. This trend may continue should the economic approach towards tourism development around Golden beach win over the push by environmentalists against the plan to construct buildings all around the coast in Karpaz.

All these are in conformity with suggestion by IUCN (2008) that Habitat loss and degradation via building construction, beach armouring and sand extraction are major threats to sea turtles.

### **6.3.2 Coastal Plants of North Cyprus**

Another chain of influence that was found is related to the sand hills and dunes that dot the coastline of Bogaz, Famagusta, Karpaz and Kyrenia. These sand hills and dunes serve as habitat for numerous animal life forms as well as flora such as

*Romuelea Tempskyana* (rare flower which is endemic to Cyprus and the Mediterranean), *Pancratium*, Beach Lily and Rosemary (the dune of Ronnas bay is the only place where Rosemary grows wild, as suggested by Viney, 1994).

Findings indicate that most of these flowers may have been lost with the removal of some of the dunes and building of hotels on them; one such dune was on the Volakidi coast (Bafra), this was removed while one of the hotels was being built.

Beach lilies which dotted the long beach along the coast of Iskele are now rare as parkways have been developed there with sand imported to the beach from different location for the planting of those pine trees that are presently growing on the long beach.

The felling of Carob and olive trees which line the coast were found to be a cause for concern on the island where this is not unrelated to building of hotels and construction of residential homes for tourists. Studies such as those of Schmidt and Worley (1991) Tsintides and Komtellandes (1998), Viney (1994) and a host of others suggested that North Cyprus coast is home to numerous indigenous carob trees, but at the time of this study not that many carob trees where within proximity of some of these tourist accommodations along the coast.

Viney (1994) in his study suggested that carob and olive trees were being felled for firewood, but findings of this research suggest otherwise as these trees only serve as firewood after they have been removed by construction companies and investors in order to erect hotels and villas and other infrastructure in their place. *Arisarum Vulgare* (Frair's Cowl) and *Oxalis Pes-Caprae* (Buttercup oxalis), two rare flowers which are found in the Kyrenia range have as habitat the shady scrubs under the

carob trees; the felling of these trees definitely is robbing these flowers of their habitat.

Also, findings from this study indicate that large numbers of olive trees were cut down along the coast in the Karpaz region for the construction of petroleum depot which would serve ships anchoring or transiting the bays of the island. This may be considered by some as not being a direct influence of coastal tourism, yet it is arguable that since passengers on some of these vessels often account for the transient tourist profile of the island and use the coast just as the other tourists do, this infrastructure serves coastal tourism.

### **6.3.3 North Cyprus's Birds and Visiting Birds**

Findings showed that some isolated beaches of the island have been noted as home for two shy birds where one of them – *Phalacrocorax Aristotelis* is considered an endangered species. Another group of transient and resident tourists on the island are birds which annually migrate from Europe to Africa, and North Cyprus falls within their migrating route; two out of which are winter visitors. This finding shows support for Schmidt and Worley (1991) position that North Cyprus is a temporary home for a greater population of migratory birds.

A bird watcher among the people interviewed said the transformation of the beaches from isolation to a hub of activities pursuant to the presence of hotels may be the reason why some of these visiting birds have ceased from coming to the island. One such visiting bird mentioned which has not been sighted since 1996 is the white fronted goose – *Anser albifrons*, while Golden plover – *Pluvialis apricaris* was reported to still visit in winter. However, with the presence of those hotels on the coast, it wouldn't be surprising if this bird also ceases from coming like the goose.

These findings being backed by the suggestion of Swaney et al (2012) on how small changes made by man to the coast resound on the quality of life in the coastal zone, helped to form proposition 6b as:

*P6a Modification of coastal landforms negatively transforms local ecological system in a small island*

## **6.4 Sea Waves and Land Loss Manifesting from Changes to the Coast**

Another manifestation of changes to the coast was in Iskele; where buildings can be termed to be more of marine than terrestrial since a sizeable number of houses is just a step from the sea. Although there was no quantitative measure of the influence these building are creating on the environment, subjective findings have showed that they interfere with *longshore* wave action within that coastal vicinity, thereby leading to coastal land loss through erosion.

This can be related to how the sea has claimed the minor stretch of coast which used to separate some of these buildings from the sea as suggested by respondents who claim to be familiar with how the area was over 30 years ago. An academic respondent stated that in just two (2) years, the entire beach along Kuzey evler was washed into the sea as a result of changes in the wave and sand movement, where this was caused by the buildings and walls erected too close to the surf zone.

Wave actions are physical processes which often require first observation then measurement over some identified period of time. In line with this, the perception of respondents that the construction of buildings on the coast may have been responsible for the loss of shore in this area due to the interference with wave

movement and shape which is characteristic of the coastal zone may be accepted. This is an assumption based on the observation of people, even when they did not plan it or target such observation for academic purpose.

Considering that observation is a major tool in research, whether by the researcher or report from other observers, this finding may then be considered acceptable as an influence of coastal tourism activity on the coast, especially since there isn't any quantitative data or study on this area which contradicts this as at the time of this research. However, further empirical study on North Cyprus in this regard may make it more conclusive.

Rio et al (2012) in their discussion on shoreline evolution trends suggested that human influence contribute to changes in the shore, where his study however focused on coastal engineering works and damming. On these premises and O'Connell's (2000) argument on landform sustainability as a synthesis of human and natural influences, proposition 6 was suggested as follows:

*P6b Modification of coastal landforms for accommodation obstructs coastal processes and induces land loss to sea wave action in a small island*

## **6.5 Moderating Effect of Planning and Coastal Zone**

### **Management in the Face of Political impasse**

Williams (1998) explains planning in terms of a defined/ordered series of processes and actions directed at “a single goal or set of interrelated goals”.

Planning for coastal tourism cannot be done in isolation from the overall tourism sector but as an integral part of planning the country. And Schmidt et al (2011) pointed this out with emphasis on the adaptability to governance where planning and

management of coastal land is concerned. Findings show that there is no such ordered process for development of the island of North Cyprus, and in the absence of a master plan, infrastructure which supports the physical and socio-economic sectors of the Island is left unplanned and mostly developed without hazard control or mitigating factors.

In the absence of a master plan, there exists no operational tourism development plan for this coastal resource which makes the island an attractive destination, and the last such plan which was prepared in the early 1960s is now more of an archive document.

The absence of planning becomes more evident where construction of buildings were neither regulated nor guided under any rules, such that individuals and groups have built houses and hotels within the coastal area even when such is prohibited or such lands are fall within sensitive areas or habitats.

A coastal zone management plan might have helped in ordering this process of development, yet, findings show that such localised plan is also not available, and no systematic study has been conducted on the coastal area of the island in a bid to assess the resource, understand and define it, so as to come up with ways of managing the area and monitoring its response to such management.

Destinations have often been shown to exhibit unique characteristics especially with economic and political undertone as suggested by Bianchi (2004), and North Cyprus is not an exception. Findings indicate that the political impasse that started in 1974

has continued to plague the island and may be considered as a major factor belying the results of this research about planning.

The issue of non-recognition and embargoes placed on the island has left it to self-sustenance, except for aids which it receives from Turkey (the only country which recognises North Cyprus as an independent state). As a result, exploiting this tourism resource appears to be one area which has been considered as a short term means towards sustaining the economy of the island. As shown in the findings, investors with ‘the right’ amount of capital are allowed to make choices about land development with little or no guiding limitation to the scope of such investment.

Also, environmental impact assessment of investments appeared not to be a common concern either before or during the development of such projects, how much then monitoring after completion. This may not be unconnected to the leverage which such investors and developers bear on the government having considered that they were allocated land based on approval from some government quarters to start with. This is not too far from the suggestion by Schmidt et al (2011) on how often governmental – “public administration’s” decisions determine how coastal land is used and Christodoulou (1959) on institutional impact on land use.

As a country in isolation, series of practices which otherwise would attract concern from the global community and regulatory bodies have continued to fester without call for correction. One such regulation is the United Nations Environmental Protection Act which is not enforceable on North Cyprus since it is under embargoes from the United Nations. Another embargo which has taken a toll on the island is that from International Air Transport Association, which prohibits any direct flight to

the island; as such Turkey is the only country through which flights can access it, except through the seaport and the South. This has continued to constrain the development of tourism on this island as cost of flight to North Cyprus is expensive in comparison to its contemporaries.

In the face of these, the government of the island consists of divergent interest, often influenced by externalities. The result of which is the absence of a defined structure with a set goal aimed at ordering or planning the overall development of the destination.

Based on these findings, Olaniyi et al's (2012) and Schmidt et al's (2011) suggestions on the necessity of a focused development plan backed by political will, propositions 5a and 5b were developed as follows:

*P5a Planning and coastal zone management system reduces the impact of coastal tourism development on changes to coastal area in a small island*

*P5b Planning and a coastal zone management system reduces impact of coastal tourism development on shift in tourism profile in a small island*

These factors continue to affect coastal tourism on the island, and as it seems, it is also redefining the tourism profile therein with coastal tourism resource being used to promote other forms of tourism, mainly casino tourism. This is because the kind of investments being developed under the guise of coastal tourism are not sustainable by it, and with the capitalistic nature of this investors with support by the shift in casino market from Turkey to North Cyprus, what better way to make earn return on their employed capital than casino.

This study found that casino as a tourism function is not very popular among the people, but it is rather being condoned. Casinos are fast becoming a major tourism attraction defining the development of infrastructure and coastal land use in North Cyprus. They create lots of activities and generate a lot of returns, yet contributing little to the overall economy of the island as outputs are repatriated out of the country and a large number of the employees are not local to the island where this creates an evidence to back up the claim by Michael (2009). It is noteworthy that with the spate of activities associated with this dimension of tourism, there was no record found during this research with which to ascertain its contribution to the economic indices of North Cyprus.

On that basis propositions 2 and 4a were formed:

*P2 The kind of activity – accommodation that underpins coastal tourism development may lead to a shift in the tourism profile of a small coastal island*

*P4a Supporting activities mediates the influence of Coastal tourism in causing shift in the tourism profile of a small coastal island*

An important outcome of this research was the level of environmental awareness among the respondents, where some were of the view that the environment has not suffered too much in terms of coastal land loss and can still be redeemed if proactive actions are taken beginning from now. Some suggestions which respondents believe may help remedy the influences which have been discussed so far were summarised as follows:

- Hence forth, no hotels, establishment or houses should be built on the shore

- Where building is unavoidably necessary, such should be in small sizes and built with eco-friendly materials, not from concrete and at least 100km away from the shoreline
- Buildings should be located at considerable distance from the coast
- Luxurious and large hotels should be built away from the coastal zone
- Access routes and infrastructure should be provided from such hotels to the sea and coastal area
- Big roads should not be constructed everywhere, rather smaller roads should be constructed and allowed to blend with nature
- Sensitive areas should be delimited and cordoned off under protection
- Introduction of coastal zone study and collection of information from a broad range of persons cutting across the academia, environmental organisations, tourism practitioners, government as well as the local communities.
- Development of a coastal zone management plan based on the above
- Development of a country master plan which should include a tourism plan.

## **Chapter 7**

### **IMPLICATIONS, RECOMMENDATIONS AND LIMITATIONS**

#### **7.1 Implications**

Findings from this study show the importance of understanding the tourism resource base of a small island which is premised on a proper study of this resource, processes within and around it, what interactions take place therein and how best to harness the resource responsibly without jeopardising the sustainability of the resource for continued use by of the people.

For this chain of reaction on the coastal area to be managed and minimised, planning and coastal zone management are very essential. As indicated in this study, most of the influences that have been associated with coastal tourism have emanated from the absence of any defined set of rules guiding buildings as well as coastal land use. Lack of a master plan which can help to guide land use decisions and define zones and development paths while integrating tourism development cannot be overemphasised especially for vulnerable places such as North Cyprus where land is supposed to be a limited resource. However, the Island's small present population has continued to shield it from this reality of scarcity of land.

Coastal change due especially to climate change and rise in sea level is now a phenomenon being studied and countries carrying out researches on how to adapt to

it. It is no more news that coastal change could be either natural or human induced, while there is persistent clamour to reduce that which is attributed to human activities as it is within man's control.

The way coastal tourism is perceived aids its definition, where this is very important towards guiding what kind of buildings and infrastructure should be provided to support it with the aim of ensuring compatibility of these with the coastal zone. This aim will help shape the tourism focus of such a small island destination without a shift in tourism profile at the expense the set aim. Therefore, the coastal tourism function needs to be well defined first and foremost before its further development.

An understanding of the emerged relationships from this study as depicted in the model indicates the importance of coastal zone assessment towards ensuring compatibility in the coastal land use. This assessment requires the integration of several institutions and diverse, yet related bodies of knowledge so as to ensure emergence of a unified framework towards development of set standards and measures that cut across different interests. Leveraging on the not so common knowledge of a broad stakeholder group to include residents, hoteliers, travel agents, environmentalists, municipalities and construction companies will be most beneficial towards establishing a goal or vision for development of the island.

This will help evolve effective area and master plans which will be generally understandable, acceptable and implementable towards reducing the various impacts associated with harnessing the island's coastal resources for tourism and related uses. With this focus, developing coastal tourism in North Cyprus will be of manageable level of influence on the coastal area, considering that some changes to the coast are

unavoidable with these activities, thereby setting the island on the road to a sustainable coastal tourism.

## **7.2 Recommendations**

The government of the island has a responsibility not just to the people but also to the land, where this involves maintaining protection of the entire coastal zone while working towards creating economic benefits to the community. It is therefore important that series of studies be carried out on the coast of North Cyprus to assess the various characteristics of the coastal zone in order to guide proper zoning and informed land use decisions, rather than what presently obtains. The following are therefore recommended to policy makers to foster resource sustainability:

- A moratorium on construction of any kind within 200-300m of the coast
- Immediate assembling of a team of experts to include Marine biologists, Geographers, Geologists/Morphologists, Hydrologists/Oceanographers, Urban Planners, Botanists and other environmental disciplines (Burns 1999, 2004).
- The coastal zone should first be defined based on the team's agreed parameters and set standards.
- The function of this team will be to conduct a comprehensive study on the coastal zone of North Cyprus within 18 months and develop a strategic focus for the island with inputs from the different members of the island's communities and institutions to be submitted within 6 months of completing the study as exemplified in studies by Dodds (2012) and Hanna (2007).
- Development of a coastal zone management framework with which to implement the strategic focus/vision based on the recommendations of the study team; reference may be made to Alipour and Altinay (2007)

- Establishment of multiple forums for dialogue and discourses between government, tourism institutions, construction companies and local citizens on a continuous basis. This will help to educate, inform and generate feedback among all participants (Burby, 2007; Poudyal and Larson, 2012).
- A review of current development plans (if and where such exists) with information obtained from the study group as a guide
- Development of a plan supported by measurable implementation and monitoring guidelines within 6-8 months (subject to consideration) of submission of the report by the study team and the ensuing dialogues and discourses.

This study shows the sensitivity of the unique coastal resource to tourism, where it calls for environmental consciousness among tourism practitioners with better show of responsibility in the administration and management of the base of the tourism sector of North Cyprus.

Several propositions emerged grounded in the data and existing literature and as shown in findings from this study. Premised on a qualitative study and comparison between limited information available and what presently exists, their generalisability may be deemed limited to North Cyprus. One such proposition which appeared to be of much interest is the shift in tourism profile as a result of mismatch between coastal tourism and coastal tourism activities. As such, measurement and testing of some of this and some of the other suggested variables among a larger sample within North Cyprus and in other small islands are recommended for further research.

### **7.3 Limitations**

Several factors may be considered as limitations in this study. Interviews were used as a major source of data collection so as to access depth, as such the number of respondents included in the study was limited to twelve (12) carefully and purposefully selected. This may be criticised as not representative by some, however, with kind, quality and depth of data required (being the core of a qualitative research), issue of validity is considered addressed, especially with back up by expert opinion. Care was taken to avoid such issues often associated with language, as this research was conducted in English language while Turkish is the first language of most of the people interviewed. On the issue of generalisation, this study was carried out with specific focus on North Cyprus as case study; as such findings are not suggested as conclusive on other destinations.

The limited and/or non-existence of historical data/records and academic information on the coast of the island was a major constrain towards making judgmental call on a number of findings from the interviews; as such confirming some views had to be done by visiting some of the sites indicated by respondents with pictures taken. These were then compared with some older pictures and the sparse literature especially on the changes to the coastal landforms.

Some respondents had few reservations and were not completely expressive about issues raised as a result of the political position they occupy, however, data collected sufficiently addressed the core of this study.

## **Chapter 8**

### **CONCLUSION**

Small islands have often been associated with their dependence on their natural resources as a means towards attaining growth and development. The ecosystem of these has been confirmed as fragile, sensitive and vulnerable to most activities of man. Also, their smallness and isolation often impedes economic expansion through tourism except in cases where such an island is affiliated to principal mainland, or a country through which trade is fostered.

North Cyprus as one such small island is not exempted from these constraints especially with its dependence on Turkey for aids, yet its case is peculiar mainly due to its political uniqueness which has continued to influence decisions on every other aspect of the State whether economic, environmental, social and/or cultural.

Of importance and as focused upon in this study is the environmental baseline of the island, how and to what extent this has been influenced by various behaviours and actors as well as the responses generated by the environment to these influences.

This is premised on the assertion that the environment is a conglomerate of different yet intertwined components which function together to maintain a balance, and the actions of which reflect on every other members either positively or negatively. As shown in this study, the coastal environment is a component that is of importance to

the small island of North Cyprus, because most of the activities that have continued to define it revolve around its resource base of Sea, Sand and Sun.

The island's over 200km of shoreline is characterised by diverse landforms such as sandy beaches, rock cliffs, caves, bays, dunes, which serve numerous purposes and are mostly the points of attraction of its coastal tourist population. These landforms are crucial to the maintenance of various localised ecosystems either as habitat or for sustenance of the overall ecosystem of the island. Such life forms for which the sandy beaches serve as nesting ground being *Caretta Caretta* and *Chelonia Mydas*, two endemic Mediterranean species of sea turtles which swim the shores of North Cyprus. Some species of birds find habitation and feeding ground in the isolated rocky beaches and some marshes along the coast of the island most especially migrants from Europe to Africa. Also several plant species depend on the island's coastal zone as habitat especially the native carob and olive trees. Some floras especially the beach lilies and rosemary find spots on the beaches and used to grow wild thereon. Yet these landforms have continued to be manipulated, modified and in some cases destroyed in the bid to create accommodation and infrastructure to serve tourists. Thus, the life forms are under threat of loss of the coast as their habitation, breeding and/or feeding ground due to their attractiveness which has endeared them for coastal tourism.

Sea turtles which used to dot the sandy beaches of the island are now limited to Alagadi and Golden sand beaches, only because these two have been conserved as protection zones. Aside losing some of the beaches to the hotels, the light that reflects from this scale of hotels at night often misdirects baby turtles, leading to reports of dead turtles found further landwards.

Resident and migrating birds that prefer isolated beaches are being threatened because of the presence of so many people intruding on their habitat due to the location of the hotels. As stated in the discussion, if the White fronted goose has ceased to be sighted within 20 years of tourism development, it may then be said that other species are under the same threat of habitat loss.

North Cyprus is suggested to have six (6) tourism profiles out of which coastal and casino tourism appear to be the most lucrative and conflated, however it should be of note that education tourism is another profile which did not come up in the findings but was mentioned by two respondents, hence it was classified under residential tourism.

Coastal tourism function as understood in North Cyprus is premised on the perspective of the development activities that support it as findings have shown. These activities basically rest on provision of tourist accommodation and road development in a bid to attract more tourists to use the coastal resources, thereby generating economic returns for the state. In this vein, building of large hotels and second homes on the beaches and in some cases right on the shoreline is deemed as necessary to promote this tourism function, negligent of what consequences this may portend to the very resource which is being used to promote it. Kyrenia is a typical example of such development, where the entire coast is a mass of concrete buildings of various dimensions and sizes lined up next to each other while competing with natural landforms for space. Considered as a rocky coast, several cliffs and rocks have been completely removed, blown off, cut into or built upon in an attempt to have the buildings next to the sea. Beaches which dotted the coast of Kyrenia as

reported by Dreghorn in some of his studies only appear in books and maps and in names.

Bafra also is a peculiar location. A bay which is characterised by beautiful beaches but has been set apart as the Las Vegas of North Cyprus where there are presently four (4) gigantic architectural pieces of hotels, only two of which are completed and functional to date. Yet a total of eighteen (18) such is what has been planned for that fragile and vulnerable local ecosystem. Since this area (Ronnas bay) is reported as the only place where rosemary grows wild, we may as well bid farewell to seeing much of that in years to come, except maybe in hotel gardens.

Of more interest is the finding that these hotels are often not in conformity with the essence of coastal tourism but rather serve the function of casino tourism. Accommodation and access to some of the hotels is restricted and subject to membership, where a visit is all that is needed to confirm this assertion. The argument then is that, since these hotels mostly serve casino tourism function rather than coastal tourism, why locate them on or near the coast. Some may argue that both functions can be combined for more attraction, yet the cost of this conflation is gradually being revealed and the consequences definitely will continue to reverberate on the coastal environment as a whole.

One impact that often goes unnoticed is the obstruction to the natural process through which coastal landforms emerge. This is because a small sized rock or cliff can take several hundred or thousand years to form from continuous sea action either through deposition or weathering. With the removal of calcarenite rocks and cliffs of the coast from which sandy beaches emerge after years of attrition, this landform transformation is definitely either being slowed down or prevented.

These arguments therefore support several academic views about how the environment is a unified body such that a wrong action especially through human activities will trigger a chain of reactions that affects every other component and may generate dire consequences for man.

Therefore, a misinterpretation of coastal tourism will often lead to development of incompatible activities mostly buildings and infrastructure where this may lead to a change in the coastal area with its influence on the ecology and natural processes within the zone. Hence, coastal tourism is not liable for these impacts as often presented. These accommodation styles can also induce a gradual shift from the tourism profile often associated with small islands. The absence of adequate planning framework and practice will further heighten these influences.

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## **APPENDIX**

## Data structure

