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APPLICATION OF COLLABORATIVE APPROACHES TO THE INTEGRATIVE ENVIRONMENTAL PLANNING OF MEDITERRANEAN COASTAL ZONE: CASE OF TURKEY

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ABSTRACT

This study, being the assessment of the collaborative land use planning for the coastal zone with their methodologies and environmental impact assessment is oriented in such a way that it can also be seen as a guideline for the integrative environmental planning in the Mediterranean coastal zone especially for Turkey. With this study, it is targeted to integrate the techniques of traditional, regional and local land use planning with those of coastal zone science into application techniques with the potential of developing coastal management capabilities for planning. As a result of these, there are some suggestions such as public participation should be used efficiently in each stage of planning processes, local and national authorities should be worked in harmony and the likes have been made.

Keywords: Environmental Planning, Integrated Coastal Management, Mediterranean Coastal Zone, Turkey

AKDENİZ KIYI ALANININ BÜTÜNLEYİCİ ÇEVRE PLANLAMASINA YÖNELİK İŞBİRLİKÇİ YAKLAŞIMLARIN UYGULANMASI: TÜRKİYE ÖRNEĞİ

ÖZET

Bu çalışma, Akdeniz kıyı alanında, özellikle Türkiye'de, bütünleyici çevre planlaması için bir kılavuz olarak kullanılabilecek şekilde metotları ve çevresel etki değerlendirmeleriyle kıyı alanlarında işbirlikçi arazi kullanımı için bir değerlendirme yapmaktadır. Bu çalışma ile geleneksel, bölgesel ve yöresel alan kullanım planlamalarının kıyısal alan bilimi uygulama teknikleriyle birlikte planlama için gelişmekte olan kıyısal alan yönetimleri potansiyeline uyarlanması amaçlanmaktadır. Bunların bir sonucu olarak, planlama aşamalarının her aşamasında halk katılımının etkin kullanımı, yerel ve ulusal yetkililerin uyum içinde çalışmaları vb. öneriler yapılmıştır.

Anahtar Kelimeler: Çevre Planlaması, Bütünleşik Kıyı Yönetimi, Akdeniz Kıyı Alanı, Türkiye

1. INTRODUCTION

Coastal areas are among the first to suffer the impacts of global environmental problems and also the impacts of many activities such as urbanization, irrigation and hydro-development projects. The results are starting to appear all over the world such as critical climatic phenomena, floods, erosion, regression of the sea, the shifting of the coastal lines, water pollution, loss of wildlife, human and economic negative externalities, etc. (Dickert and Sorensen, 1978; Clark, 1996; Kaya, 2006).

It would be appropriate to start with what we mean by collaborative planning. Quiet generally, collaborative planning is an approach that combines the forces of state and local units of government to prepare and apply local, regional, or state land use plans (Clark, 1996).

In the coastal zone management plans, collaborative planning plays a character that balances centralized and decentralized approaches. To be more specific, it is a design that is open to contribution from cities and counties without relying on them heavily when significant regional and statewide goals are considered (Dickert and Sorensen, 1978; Sorensen et al., 1984; Clark, 1996).

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An outstanding difference of collaborative planning process as compared to traditional land use planning which is applied in the context of community general plan process is that it forces local governments to prepare plans on the basis of the policies supplied by the state (Sorensen et al., 1984). This step is followed by the review of completed plans via the state authorities to determine whether they are consistent with the adopted state policies (Dickert and Sorensen, 1978). In this process, the state reserves the right to reject local decisions when it figures out a project may cause an inconsistency with an approved local plan. It is apparent that these three steps of the collaborative approach add up to develop a management process in which negotiation and potential conflicts between local and state units of government grow up. Therefore, specific factors encouraging a collaborative approach must be dominant enough to overcome the conflict between local and state forces.

As stated by some researchers such as Sorensen (1984), Clark (1996) and Kaya (2006), the collaborative methodology includes individual methods grouped into categories related to the steps of the planning process. This methodology may help in regional and local land use planning for specific watersheds and coastal reaches. Both quantitative and qualitative tools can be used to analyze plan targets and to improve alternative solutions. Although collaborated in a theoretical framework, the methods may be used individually or in combination to apply specific problems.

2. MEDITERRANEAN COASTAL ZONE AND TURKEY

2.1. Mediterranean Coastal Zone and Problems

Mediterranean, located between three continents (Africa, Asia and Europe) and two oceans, can put the blame for part of its degradation on the rest of the world. The Mediterranean Sea area includes its gulfs and seas from the Straits of Gibraltar to the Straits of the Dardanelles (Canakkale, Turkey). For this reason, it does not involve the Sea of Marmara (Inland Sea in Turkey) and the Black Sea. Twenty-two countries have coasts to Mediterranean Sea these are Albania, Algeria, Bosnia and Herzegovina, Croatia, North Cyprus (Turkish part), South Cyprus (Greek part), Egypt, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syria, Tunisia and Turkey (Figure 1).

Figure 1. The Mediterranean Sea with its countries (Graphic Maps, 2010)

The mountains are seen at the most of the Mediterranean basin except the Sahara Desert that directly comes through the sea. As a consequence of this geographical situation, there are rare large plains and agricultural land resources are limited. After the World War II most of the coast in the Mediterranean basin became urbanized and industrialized. Hence, the balance between human and nature has since become a problem day by day in the area. Increasing population in coastal zone is one of the biggest problems in the area. According to the Mediterranean Blue Plan in 1988 the population of the coastal regions is estimated to between 200-220 million in 2025 (UNEP,

1997; METAP, 2002). Furthermore, the urbanization will also increase in the specific regions. In the Mediterranean region, the rapid development will bring problems such as lack of adequate water supplies, transportation, energy, health, etc. These will all amount to a real challenge at the level of coastal planning and management. The impact of development may be first felt in allocation of space, the production of solid and liquid wastes and the depletion of fresh water resources (UNEP, 1997). Social problems, tensions, and conflicts may occur because of them. If the booming of the urbanization and industrialization in the coastal regions are not controlled, they might have huge effects in the public services, labor market, and accommodations.

The Mediterranean is an enclosed sea that is the most serious factor affecting pollution, and makes more difficult the self-cleaning of its waters. The water has always been the dumping ground for the wastes generated by human activities. However, pollution began to threat environment especially in the industrial era (UNEP, 1997). The coastal environment is mostly polluted by urban/rural industrial effluents, agricultural runoff, discharges from ships, garbage originating in the sea or on land pollutants transported through the atmosphere, etc (Briand, 1993; METAP, 2002).

Untreated wastewater is the largest unknown waters in the Mediterranean coastal zone. Industrial effluent especially consists of heavy metals that pose health problems because they directly go through the food chain. Untreated urban sewage is another huge problem in the coastal zone because it carries the unhealthy bacterial and vital pollution to sea-water and causes various diseases (typhoid, hepatitis, etc.) contacted either by sea-water ingestion or direct contact during swimming (UNEP-MAP, 1994).

Oil and its discharges are also problems in the Mediterranean coastal zone because the 1/5 of the world oil transportation has occurred in the Mediterranean Sea by ships. Nearly 0,5 to 1 million tons of oil are discharged in the Mediterranean Sea every year that includes used oils from settlement areas and industrial complexes, accidents at sea and discharges from ships (METAP, 2002).

Some countries (e.g. Malta, Israel and Libya) use more water than can be replenished by their resources; some others (e.g. Tunisia, Egypt, Syria) reach critical usage points (METAP, 2002). Hence, they have to make greater use of unconventional water resources and methods. They will all have to make greater use of unconventional water resources and methods (desalinization, imports, etc.). The water shortage becomes a critical problem because it gives rise to conflicts and tensions among countries for the exploitation of common resources.

There are several causes of environmental problems in the Mediterranean regions. These include laws and regulations that are inadequate or enforced administrative conflict in terms of the environment, lack of adequate equipment, unskillful personal to monitor the environmental problems, insufficient transportation system, inadequate development policies, etc.

2.2. Coastal Zone of Turkey and Problems

Turkey, being located on the Anatolian Peninsula, has borders to four seas (the Mediterranean Sea, the Aegean Sea, the Marmara Sea and the Black Sea). Turkey has been divided into 81 provinces and each province is administered by governor (*Vali* in Turkish) who is appointed by national government and sits at the provincial capital. Other somewhat bigger cities or towns in province have a sub-governor (*Kaymakam* in Turkish) who serves as supreme authority within the borders of that city or town on behalf of the national government and reports to the province's governor (Kaya, 2006).

The total length of the coastline in Turkey is 8333 kilometers including islands. According to TURKSTAT (2009) approximately 20% of the population of Turkey lives in the Mediterranean regions. This ratio has been booming almost double in the last 3 decades because of coastal structure, climatic conditions, job opportunities (e.g. tourism sector), and tremendous migratory movements from inland regions to coastal regions. Since the 1960s, the Turkish coastal zones have gained great importance because of the increase of the economical activities that are mostly tourism activities (Eke, 1993; Kaya and Smardon, 2000). The diversification of activities and increase in their scales has resulted in use conflicts on one side, and degradation of resource values on the other. The increase in urbanization, industrialization, agriculture, transportation, tourism development, vacant housing projects, preservation and conservation requirement have brought further problems after the 1980s. Since the 1980s, a number of acts which have been aimed to organize the activities of miscellaneous

sectors in the coastal zones were put forth. These include Coastal Security Force Act (1982), Environmental Act (1983), Bosphorus Act (1983), Coastal Act (1982, 1990 and 1992) and the likes (Ozhan, 1996; Kaya, 2006).

Many of the environmental problems witnessed in the sea are the results of activities that take place on the coastal areas. Compared to these, dangers that occur on or within the sea are fewer in number. This, in turn means that greater attention is needed on coastal activities and developments and on plans that formulate and direct such developments.

In order to mitigate the negative impacts of coastal plans and developments a series of measures were formulated by the Turkish Government. Between 1988 and 1990, following the enactment of the environmental act, and the Addendum Protocol of Barcelona Convention (protocol concerning protected area in the Mediterranean), 12 specially protected areas were declared by the Council of Minister. Nine of them are areas, located on the Turkish Mediterranean coasts (Özhan, 1996).

The coastal act in Turkey has defined the coastal strip as a homogenous zone within a certain distance of which no development can take a place. This coastal strip was defined by the Coastal Act. It sets some quantitative measures and restrictions for areas close to construction. Often land allocated for recreational and tourism facilities create the feeling that planners have not based their planning on any coastal development strategies, nor taken into consideration the opportunities or problems that the coastal zone carries. Plans therefore should need to be prepared locally. Not the entire coastal zones fall within local government boundaries. Planning control over areas outside falls within the responsibility of provincial authorities. These areas do not form a meaningful whole for which plans can be prepared. Nor are these authorities equipped with resources with which they can prepare plans (Özhan, 1996; Kaya, 2006).

It can be argued that the main reason for unsatisfactory results is because, from the outset, the coastal act does not aim towards a comprehensive management. Moreover, according to Gündoğdu and Aday (1997), the Coastal Act in Turkey does not treat the sea and land equally. It is dominantly occupied by land use on coastal areas rather than the sea.

Responsibility for enforcement of the Coastal Act is given to municipalities within their jurisdictions and in their development area, and to the provincial governors in the rural areas. Since this procedure tends to results in an unlinked planning of the coastal area, which, despite executive divisions, is a continuous space (Eke and Karaaslan, 1997). This continuity is spoiled by unique endeavors of local authorities that are located one after another along the coast. Yet any rural settlement in Turkey reaching the 2,000-population limit can manage municipal status and gain planning powers alongside it, the new municipalities with lack of adequate technical expertise, skill and manpower assistant largely to environmental degradation and irrational use of coastal areas. Therefore, it can be asserted that in Turkey, coastal area management suffers from the sectoral and strict approach of the coastal act, as well as from unlinked planning and implementation (Algan, 2000; Kaya, 2006).

When coastal acts of Turkey are investigated, it can be seen that they all cover general directives and points; but fail to consist of specific points in thinking about the local environmental and physical characteristics. As a result, there is no difference between planning standards at coastal areas and inland areas. Therefore, it is difficult to see any new development that respects the local characteristics and environment. The disappearance of local characteristics and the construction of poorly designed repetitive developments cause not only visual pollution but also threaten the natural and cultural environment (Gundogdu and Aday, 1997).

According to the Chamber of Architects (1996), one of the problems that need consideration is the type of planning arbitrarily carried out in Turkey. This planning approach lacks of dynamic properties and it mainly relies on 20 year projections of land use. This kind of planning does not really address ecological and aesthetical issues; rather it is dominated by economic and political criteria. A method of this planning generally relies on collection of economic, physical, environmental, demographic and social data. However, most of the time this data is not facilitated in implementation plans appropriately. In fact a classical threshold analysis is usually employed. It is evident that for planning procedures to attain sustainability carrying capacity of nature in relation to the proposed land use should be taken into account (Özhan, 1996; Eke and Karaaslan, 1997).

In the coastal regions of Turkey, there are intensive demands for construction on the very few remaining open areas. Everybody has been putting tension on the local administration for an increase in the authorized height of buildings. The built-up area, after swallowing the huge agricultural areas (especially citrus gardens in Antalya, Turkey), is now swallowing other small agricultural lands (Chamber of Architects, 1996). While structural pollution on the horizontal plan is destroying vegetation, open spaces, and the natural texture of coastal lands, on the vertical plan its is destroying their air, their views of nature and the appearance of regions. (Kaya, 2006)

It is a fact that Tourism Incentives Act of Turkey is mainly concern with the development of tourism sector (Kaya and Smardon, 2000). Therefore, in some cases this has resulted in allocation of forest in coastal areas to the tourism development without paying attention to zoning considerations. The establishment of tourism facilities one after another along coastal strips in Antalya has left no space for protections or special sections of nature that could in return have provided more touristic attraction (Kaya, 2006).

The development of tourism along the coastal areas also stimulated construction of summer housing in the vicinity. The land value around coastal cities risen up. Unable to provide sufficient capital and skilled management labor, local landowners ended up with selling their land to the small summer housing cooperatives to gain immediate profit. This has been resulted in invasion of land with the summer housing complexes far from aesthetical value (Chamber of Architects, 1996; Kaya, 2006).

According to Kaya (2006), Turkish coastal planning is in conflict with environmental protection and physical development as well as that of public and private usage. All of the Turkish local municipalities have their development plans. The problem is not that of obtaining a plan. It is rather a problem that is related to the whole planning system: Local authorities do not have their planning team which results in lack of monitoring and updating of plans.

In most cases, coastal plans in Turkey are over-ambitious in that they open up vast areas for proposed development. This contradicts with the concept of carrying capacities of natural resources and the residential/non-residential users in many cases. In addition to these, local governments have not considered social equity that is a major issue in local coastal plans and management (Kaya, 2006). This is especially important in case of beach access, since some coastal developments have tended to become as prestigious enclave for certain groups of people (Smardon and Kaya, 2000). Wire-mesh barriers are still seen in the coastlines of Turkey.

The main goal of planners is to maximize public usage of the coastline (Taner and Ünal, 1995). However, this effort is hidden within the clauses of the Turkish Coastal Acts which have been reformulated several times up to the current time with the inevitable consequences that planning offices of local authorities have been locked up in implementation (Kaya, 2006).

The planning of the whole coastline is required while taking into account the potentials presented by each segment of the coast for future use. Some areas would need absolute preservation, while others conservation of some kind or the most rational use they can accommodate (Taner and Ünal, 1995; Kaya and Smardon, 2000).

The sustainable developments of coastal areas in Turkey that are aims of residential or non-residential recreational activities require special techniques and means for planning and implementation. Adoption of general principles and use of classical tools to manage these areas are insufficient, because coastal areas are special and needs special measures and attention.

3. APPLICATION OF COLLABORATIVE APPROACHES TO THE INTEGRATIVE ENVIRONMENTAL PLANNING OF MEDITERRANEAN COASTAL ZONE

3.1. Integrative Environmental Planning of Coastal Zone

Integrative environmental planning in the coastal zone should be encouraged by well tested and experimented methods and techniques that have been developed in each year by planning with environmental professionals

(Dickert and Sorensen, 1978). The application of integrative environmental planning for coastal zone, which needs the collaborative approaches and procedures, has been showing signs of great efficiency (for instance in the Netherlands with the National Environmental Policy Plan). This practice cannot be simply generalized and its application cannot be applied without particular adaptations.

In the Mediterranean Coastal Zone, the main goals of the integrative environmental planning should be to think about the interactions between populations, resources, environmental development and their impact on the coast (METAP, 2002). Certainly, it must be a prospective and a systematic approach to obtain an instrument to explore the interactions between development policies and environmental circumstances.

The subregional planning should be designed to address several kinds of fundamental problems in the Mediterranean region, which are associated with the management of coastal systems. These problems are such as (METAP, 2002):

- The conversion of coastal prime agricultural lands, especially coastal specialty croplands for non-agricultural uses.
- The restriction of recreational visitor accesses to the coastal zone through preemption of public service system capacities (e.g., water, wastewater, and highway) for residential development.
- The lack of adequate water supplies, highway system, energy, health, etc.
- The impact of land uses located in a watershed on resources within its complex.
- The residential and industrial effluent joined with agricultural runoff and untreated wastewater generates a serious pollution in the coastal environment.
- The deterioration in the scenic qualities of coastal communities and landscapes by development activities and physical modification of the environment.
- The socio-economic mixture of coastal communities and related land uses.
- The conflict between local authority and national force.

There are various statements in the coastal act that implies an affirmative answer to the question, "*"Can the results of the collaborative methods be applied for integrative environmental planning in Mediterranean Coastal Zone?"* First statement involves the degree of specificity in land use designation that might be greater than in prototypical community plan. A case in point, if large areas are designated in arbitrary zones such as principal authorized uses supplemented by long list of conditional uses, it might be very difficult to identify the extent to which the plan conforms to coastal act policies.

Next, if the local coastal plan is approved, a primary basis for appeal of a permit licensed by the local region is the determination that the development is not designated as the principal permitted use under the zoning ordinance. As the authority of Coastal Commission (mostly national in Turkey) reviews permits or appeals that might be considerably decreased once plans and zoning ordinances have been certified, the commissioners will desire the principal authorized use to be defined as specifically possible.

Third statement requires the related land use plans, zoning, and the capacities of public service facilities (e.g. water supply, wastewater and highway). Traditional community planning has been based on capital development programs on the land use plans, the intent of community were undermined by the over extension of major public service facilities.

Lastly, the coastal commission reserves the right to review any major amendments to the certified local coastal programs. As a consequence, local governments may find it beneficial for their own interests to more thoroughly debate and resolve conflicts during the first round of plan making. Doing so would minimize the need to repeatedly returning to the commission requesting major program amendments.

The degree of specificity required zoning ordinance and land use plans that might decrease the distance relation from the coastline to the inland. The coastal commission demands very tightly specified and clearly delineated performance standards from local government all parcels bordering the coastline. In addition the commission may encourage cities and towns to identify a few priority users for parcels several kilometers inland to the extent that performance standards set fort prevent or minimize adverse impact on coastal resources.

The factors enforcing specificity will turn local coastal programs into mid-range planning documents, on the order of three to five years. After several years of application, extensive amendments will probably be required; therefore, local governments will search ways to revise their entire coastal program. Discrete quantitative targets or budgets will be incorporated as new integral components of the program to match infrastructure capacities with level of land development. This will ensure allocation of facilities reserved for public use, in particularly for recreational purposes.

Perhaps one factor, which will be most vital for the success of integrated environmental planning process, is the development of a rigorous and comprehensive information base by the commission and local government (Dickert and Sorensen, 1978). Experience of several coastal states in the US, using the collaborative approach shows that the process demands an information rich environment where both local and federal governments have scientific and technical support to prepare review and control the development of local plans (Dickert and Sorensen, 1978).

Some concerns emerge that relate to the major problems of information utilization and guidance of collaborative methods' application for the integrative environmental planning for coastal zone. These problems are (Dickert et al., 1976):

- coastal policy specification and application components,
- funding local coastal program preparation, and
- state capability to review local plans

3.2. Coastal Plans and Application Components

Coastal plan specification and application components are one of the most difficult tasks in the integrative environmental planning for coastal zone. Because its aim is to draft policies that are adequate to permit for local differences and it should be flexible enough to offer creative space for local government. Especially in Turkey, according to Özhan (1996), national coastal policies must have a high degree of generality since they set the rules and regulations for local planning over a broad area made up of dissimilar elements. The commission has to improve guidelines that translate the generality of coastal policies into terms from which local governments and other affected entities may identify the way to apply to the jurisdictions under their control. The ideal guidelines could lay out a set of criteria, measures, standards, and analytical methods for each of the policies of a coastal act. Since each policy involves criteria and measures for its application. Standards can judge the degree of harmony between a local coastal plan and federal or state coastal policies. Though, this task could be quite difficult and complicated in practice to apply it can be applicable to the extent that local and federal forces agree on its application.

The quantitative measure must be expanded in order to depict areas affected by geographically specific policies that analyze specific measures. The decision on the applicability and the extent of policies might be left to the discretion of local governments and the interpretation of coastal commission without any measures. Local governments may complain and ask for clarification of a policy as it applies to their jurisdiction. Any absence of policy application framework means a succession of political headaches as local government may search to obtain more approving renditions of policy than their complements. The extent of conflict may become even worst in the cases in which local and federal government officials are from different political parties. In such a situation, conflict between these political views may leave policies far from applicable (Kaya, 2006).

The problems in applying one of the coastal policies from the Turkish Constitution (1982) demonstrates the necessity for an extended definition of criteria, measures, and analytical methods to point the way in local plan preparation (Algan, 2000). In Turkey, none of the coastal acts defines an environmental sensitive area, but they are outlined in the Environmental Act of Turkey (1983). The Ministries of Environment in Mediterranean countries are armed by the environmental act for necessary controls in enforcing the rules and regulations on habitat and water quality (Cicin-Sain and Knecht, 1998). Local governors are acknowledged to manage to carry out controls on their part as they have been authorized by legislation. Coastal lands and coastal waters have been classified as an environmentally sensitive coastal habitat area. However, local coastal program does not specify the assessing the degree of potential disturbance from various proposed activities. Local jurisdiction should use the combination of a universal soil-loss equation, a discharge model, or a sediment model that estimates the

possible sedimentation impact of residential development. However, one thing needs to be kept in mind is that most local governments cannot be expected to calculate potential stresses on environmental sensitive areas if they do not get any assistance from coastal commission or other agencies. If a local government is required to apply a local policy, comprehensive analysis may determine the amount of coastline accessible to users, the number of people using the thoroughfares and the socio-economic demographics the public (Kaya, 2006).

The coastal access illustrates the difficulty of developing criteria, measures, standards, and methods that are valid indicators and cost effective in application. The setting standards should be scientifically and politically acceptable. Access should also be calculated by the amount of coastline jurisdiction that can afford access to the users. This should be traced out to the fact that, access is a function of the number of user who has convenient access to given stretch of coastal area. Even though, half of the coastlines of country may be open the public access nearly 50 percent of this open coastline may be in distant locations from coastal population centers. This in turn may not meet the demands of inner city residents.

Policy application costs are still important despite other policy objective indicators such as standards and analytical techniques. Survey necessary to measure socio-economic characteristic of users may go behind the budgets and technical capacity of local governments.

Although there is no general recipe to tackle the problems stated above and others to be faced, the planning process under discussion can be adapted for integrative environmental planning in Mediterranean Coastal Zone. Some general precautions can be taken and some solutions can be proposed to cope with the problems described about above. For instance, financial difficulties in making survey and research on specific problems can be resolved by calling the research institutes and the universities in the region to participate both in research projects, and judgment mechanisms (METAP, 2002). Moreover, coastal act can be modified to enforce the local governments to work with neighboring governments to diminish the political games from the beginning.

3.3. Funding for Coastal Programs

Funding for coastal program preparation is another hard task in the integrative environmental planning for coastal zone. Coastal acts' implementation consists of the communication of the local coastal governmental units and special areas with following processes (Dickert and Sorensen, 1978):

- Local coastal programs,
- Special district development plans, and
- Port plans

The local coastal programs will be prepared by local units of government (or by the coastal commission if the local government decides not to prepare a program). The special area plan should also considered by the local units of government when a local coastal program is prepared. The local units of government and special areas may collaborate in implementing the coastal act (Dickert and Sorensen, 1978). Port plans are also prepared in a similar fashion as local coastal programs. The revision and evaluation of all local coastal programs, specific plans and port plans submitted by local units are under the responsibility of coastal commission.

The extent to which local units of government and special districts participate in implementing the coastal act is determined most dominantly by timely funding and assistance from national or local sources to meet the financial needs of local plan preparation (Dickert et al., 1976).

Local jurisdictions could submit regional analysis and the work programs that indicate the actual coast of local and regional planning. They can vary depending on many factors (planning, modeling, extent of coastal zones, public input, etc.). They all show that the estimation of plan preparation and plan review costs may be irregular in estimation (Sorensen et al., 1984).

There is no obvious answer to this question, "*Whether the national funds that will be allocated in future years will be sufficient for preparation, revision, evaluation, and certification of local coastal plans?"* Although appropriate information might be required to make the national and local integrative arrangement efficiently, it may be difficult to judge the necessity of every collective and comparative item when reviewing a work program

for coastal plan preparation (Dickert et al., 1976). Since local coastal plan guidelines do not state specifically the analytical methods or required information, it is apparently assumed that this judgment will be made on a region by a region basis (Sorensen et al., 1984).

The prepared and sealed local coastal programs may be delayed as necessary for data and information by the commission. Of course, this delay may be a political expeditious that occurs in process. This approach, on the other hand, would prove to be negative in dealing with the cumulative impact of development. Commission can be giving up specificity in land use designation and intensity in order to decrease the cost of data collection. Moreover, another approach may support a subset of local governments with their financial requirements in order to produce sufficient programs. Obviously, the effects of local coastal program preparation could be waived until programs are near the end and funding becomes available. In waiting for finances, national and local political problems will be created (Sorensen et al., 1984). Nonetheless, it cannot be hoped that the local government whose programs are postponed should not be expected to react favorably to this decision. In addition developers and property owners will eventually become disappointed by the delay and uncertainty affecting their business. These objections may be suppressed by assuring local governments that their programs will be sufficiently and justly funded when financial support becomes available.

For Mediterranean coastal regions, the legislature and the governors should agree to the budget adjustments for their coastal planning. Therefore, coastal commission of Mediterranean's countries should have enough budgets to enable their local governments to describe issues and improve their own programs. Local governments may decide to get the process going with their own revenues while waiting for resources from the national government. Postponing can save coastal countries' money in terms of local governments' initiatives than the cost of financial crisis associated with postponing a program. These programs are going to need local coastal plans that functionally will answer the main issues. Commission strikes a balance between the funding and the help that they supply in terms of data and assistance (UNEP-MAP, 1984; METAP, 2002).

3.4. Local Coastal Plans, Programs and Policies

National capability to review local plans is another problematic task in the integrative environmental planning for a coastal zone. The land use plan evaluation and zoning ordinance should be required by coastal act. As a result of this, commission should know the range of uses and elements for any specific area within a jurisdiction. Moreover, the political and efficiency benefits of collaborative approach come with some environmental and social benefits. The assessing of cumulative environmental impact should be under plan review. To illustrate, the land use plan would be required to represent water and sewage systems for residential and non-residential districts. These public service systems should be adequate for the coastal users.

The effect of authorized local coastal plan may be to prevent the capacity of the coastal highway; therefore, it singles out any attempt to deal with this issue in the local coastal program for multi-jurisdictions. During plan revisions commission should operate taking into account two discrete policy constraints that are specificity and future certainty. Flexibility of policy opens the way up for the commission to interpret the applicability of policy to individual situations. This feature of commission is desirable as long as one has confidence in the commission as an objective guardian of coastal interest. Using a local plan to guide future coastal development decisions is more risky. A delicate balance should be engaged between specificity required and future effectiveness in order to make plans efficient (Dickert et al., 1976).

It is instructive to address some proposals regarding the problems stated at the beginning of our discussion. First of all, coastal commission has to primarily focus on its own planning activities which would be subregional planning for coastal systems that connected more than one local region or extent beyond the coastal zones' boundary. These subregional plans prepared should be used as a defining packed to measure policy conformance of local coastal plans prepared by local government. Subregional plans will be a helpful tool to determine access impacts and share from resources in relation to neighboring the local communities in the same coastal system. Without subregional planning most of the problems will remain largely unresolved and coastal regions in the Mediterranean zones will be left with bunch of plans lacking coordination almost by all means.

Developing use of information is a second issue to be address here. The commission must determine a feasible way for incorporating geographically base information. Created information base should be open to the use of

both local governments and coastal commission during the process of preparation and program review and certification process as it applies to the related authority. Scientific reviews should be made periodically to update accuracy and reliability of the current database. It should also include information from various unpublished or in-progress sources to figure out existing gaps in the information base which in turn may assist to determine research priorities for governmental and university research efforts.

Relating coastal and collaborative planning is another task to be handled with care. Demonstration studies should be carried over a cross section of coastal cities to establish a process for relating land use designations and performance standards within the coastal zone to inland parts of coastal regions. The demonstration studies would mainly focus on the question of displacement of uses to the inland part of the region far from coastal zone. It will also work on spillover effects such as increasing traffic congestion or use of public facilities. The demonstration studies should reflect two types of displacement in the study areas. First one is the inland displacement resulting from exclusion of specified uses from locating in the coastal zone. Second one is the over-the-boundary displacement that differs from inland displacement in respect that land to be used just beyond the boundary defined in the coastal act (Dickert et al., 1976). Although an acceptable land use plan for the coastal zone in the local region may have being prepared by the local government, the spillover effects generated by over-the-boundary displacement may seriously affect coastal resources of coastal access.

Reducing the ambiguities in policies is another case area. The coastal commission must further define and clarify the meaning of each key concept included in the coastal act policies (Sorensen et al., 1984). So as to make policies clearer suitable definitions selected from scientific literature and mapped information should be placed in the policies. The key terms, which define in the physical and natural science, include such as biological productivity environmental sensitive habitat areas, biologically productive wetlands, maximum access, natural land form, and so on. To illustrate, the coastal access may be defined in terms of the direct access to the coastline or beach or, more broadly, in terms of the amount of land uses within the coastal zone of jurisdiction that are publicly rather than privately oriented.

Constructing a framework for monitoring the program and evaluating its outcomes is necessary. The monitoring and evaluation process is an integral component of coastal zone management at both national and local levels. Both coastal commission and local governments should install a system to monitor development activity and cumulative effects associated with this development. This monitoring system must have three basic features. First one is to detect violations of the act. Secondly, it should facilitate to determine the extent to which cumulative impact of local coastal programs application exceed standards signifying threshold or performance stated in the local coastal program. Finally, it aims on to build innovative methods for predicting impacts. Since several local coastal programs will be build on incomplete information on the dynamics of coastal systems, each quantitative aim that included in the local programs has the need of periodic revision. Continued monitoring will result in a clearer identification of the indicators to be used to monitor the cumulative impact of development and analyzing the level of impact actually occurring in the region. Data acquired from the monitoring is necessary to develop new models or update and calibrate current models that can be employed to quantitatively predict cumulative impacts. The necessity of standards in the local program monitoring and evaluation doubles the importance of a consensus between the coastal commission and the local governments on measurable variables for each policy to be employed in the integrated planning process (Dickert et al., 1976; Sorensen et al., 1984).

It has come to our attention that this research singles out the effect of non-governmental organizations (NGOs) in the integrative environmental planning process for coastal zone. Because the rapid developments in the coastal regions necessitate more intense cooperative between local and state commands research institutions related sector representatives and the NGOs where effects of certain developments transcend the national boundaries (Clark, 1996). The non-governmental professional organizations such as the chamber of landscape architects, city planners, environmental engineers, etc. or the chambers of commerce and industry, the union of various professions have been actively performing well-recognized functions for quite a long time (Kaya, 2006). The contributions of the NGOs that have environmental concern to the governmental functions, but they have grown to be significant since the 1970s. Nowadays, there are numbers of environmental NGOs exist (such as Society for Conservation & Protection of Environment, The Earth Charter Initiative, Turkish Foundation for Combating Soil Erosion for Restoration and the Protection of Natural Habitat-TEMA, etc.) (Clark, 1996; Özhan, 1996; Kaya, 2006). They have worldwide, nationwide activities and with regional or local concerns. Some of them

have been actively involved in coastal zone planning and management issues such as preservation of important habitats and endangered species, coastal tourism development and management of ecological significant coastal areas.

4. CONCLUSION

The nation manages by trust the coastal resources of Mediterranean countries for present and future generations, and has a responsibility to the public to ensure a resource management that will keep a balance among citizens and economic and environmental needs of the country.

Integrated environmental planning can provide a process for national and local agencies, communities and individuals to engage in collaborative approaches about land use planning and resource management. Integrated environmental planning in coastal zones should provide the mechanism for making comprehensive decisions about the use of land and resources. It should set the integrated planning and management direction for future use of land and resources and must give way to the evaluation of the success of management activities over time.

The applications of collaborative approaches to the integrative environmental planning for coastal zones of Mediterranean countries may have advantages as well as disadvantages. Both of the environmental elements and the coastal resources are considered with their state of conservation and evolutionary trends. This in fact is a necessary basis for land use planning as a process leading to rational management, with the target of using its potential to perform its best while making provision for the planning and management of the coastal environment.

The methodologies of collaborative land use planning for coastal zones are appropriate in land use alternatives that need national and local development objectives. Therefore, these may result in proposals aimed at solving coastal environmental problems including water quality.

The coastal research aspect of collaborative methodologies makes it suitable to apply on integrative environmental planning. Moreover, collaborative methodologies incorporated in the public service facilities enables local coastal planning activities to be carried out efficiently. Furthermore, these methods can be applied to various geographical regions taking their environmental and social factors into consideration. The limitations related with water supply, wastewater and highway systems, which are crucial in coastal planning, are also considered in collaborative methodologies. The analytical steps of the methodologies can be easily applied to specific watershed and coastal reaches in regional and local land use plan since they are applicable both individually and in combination to the coastal environmental problems. In almost all of the coastal regions these also serve as, means to discuss the pros and cons of various measures and standards.

The methodologies of collaborative land use planning for coastal zones have some downsides as well. Even though these methodologies are analytically applicable to the development of land use processes, they do not include planning recommendations. Public participation has not been efficiently used in these methodologies due to time limitations and bureaucratic structure of public organizations (Clark, 1996). However, public participation is essential in implementing any local planning decision since higher levels of efficiency in programs may be attained.

As for the specification and application of coastal plan components we wish to emphasize once more that, this hard task can be successfully accomplished only if local and national forces work in harmony and do not try to deviate from the objective criteria when determining standards, measures, etc. to supply political power. Another problem we want to refer here is the funding of coastal plan preparation. Main problem of delay in financial support of projects resulting in worry in the local government and businesses may be minimized by assuring officially that their programs will be supported justly when funding becomes available. A third problem to be restated by its proposed solution here, is the capability of state to review the local plans. Since this discussion boils up to the point of striking a balance between specificity and, mid and long term effectiveness, it is a delicate task and should be handled with care at every stage of revision process.

The NGOs have been excluded from the process of collaborative methodologies. The conditions of NGOs in the 1970s being not as effective as today might be the reason for this exclusion. However, it is apparent that the

participation of the NGOs is a necessity for the success of planning processes, in today's world and their increasing productivity will make them indispensable in the future.

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