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## The Problems of Environment, Development and Planning in Turkey

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# **THE PROBLEMS OF ENVIRONMENT, DEVELOPMENT AND PLANNING IN TURKEY**

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## **Abstract**

The developing countries and their problems have an important place within the context of sustainable development debate due to the globalization and internationalization of the environmental problems. There is a high level of consensus between the developed and developing countries in regard to the level of sensitivity for environment, however, the nature and types of the environmental problems that are faced and their economic, social and cultural characteristics are considerably different. The underlying factors of the environmental problems in developed countries are rapid development and industrialization, whereas, the environmental problems of the developing countries are derived from low income level, unplanned urbanization and industrialization and inappropriate land use decisions. The differences in these dimensions directly affect the policies of each group of countries.

The most important problems of developing countries can be summarized as follows; insufficient economic growth and unemployment, poverty, rapid population growth, migration, rapid and unplanned urbanization, environmental pollution, inadequacy of infrastructure and services and deterioration of natural resources. Turkey has some problems that are similar to those of other developing countries such as rapid population growth and urbanization, environmental pollution and deterioration of natural resources. The aim of this paper is to discuss the problems of development, environment, environmental legislation and planning in Turkey that have significant impact on the sustainable development approach of the country.

**Keywords:** Sustainable Development and Developing Countries, Environmental Problems, Planning and Legislation.

## **1. INTRODUCTION: SUSTAINABLE DEVELOPMENT AND DEVELOPING COUNTRIES**

As to sustainable development, one of the most important subject is the developing countries and their problems. Not only global and international effects of environmental problems but also the problems requiring urgent solutions have drawn attention to the developing countries. Among the problems of the developing countries; low economic growth and unemployment, poverty, high population growth, migration from rural areas to the urban areas, rapid and unplanned urbanization, environmental pollution, inadequacy of infrastructure and services, excessive use of natural resources and energy can be mentioned.

The recession and stagnation on economy which were experienced in the 1980's affected the developing countries widely and increased the pressure on the environment (W.C.E.D., 1987; Gilbert, 1992; Drakakis-Smith, 1996). With this recession, GNP experienced important falls, unemployment increased, more people were forced to be engaged in agriculture to feed themselves, and as a result of this, the natural resource base was unbalanced. Affected trade levels, rising debt payment responsibilities, stagnated assistance flow and stronger protection in market economy caused serious problems for the payments of debt for the developing countries. The developing countries faced a dilemma, either to export non-renewable resources in order to cover the negative of foreign currency on growth, or to decrease the damage given to the base of environmental resources supporting the growth as minimum (W.C.E.D., 1987). Economic condition corruption showed its effect on all developing countries, especially in many parts of Africa and Latin America, and caused a fall in the quality of life. Urban poverty increased everywhere faster than rural poverty; policies to increase agricultural productivity and decreasing the public spendings known as macro-economic policies were more effective in urban areas as they are more highly-populated, and led to price increases in food, water, energy and housing, in contrast to low real wages against inflation. On the other hand, the number of those who migrated to the urban areas from the rural areas increased, most of those comers started to work irregularly as street sellers, and cleaners, and high level informal economy become a character of the developing countries. For instance, in most Sahara African countries 75% of urban employment, in Latin America %30-50 of it is estimated to be irregular (World Resources Institute, 1996).

One of the most important problems of the developing countries, apart from economic growth, is poverty (W.C.E.D., 1987; Leonard , 1989; Campbell, 1989; Bartone, 1991; Bartone, Bernstein, Leitmann, Eigen, 1994; Gilbert, 1994; Drakakis-Smith, 1996; HABITAT, 1996; U.N.D.P., 1997). 20. century has been a successful age when important steps have been taken against poverty; especially with the developments after the 1950's, the success achieved over the last fifty years has been higher than the previous 500 years. Since 1960's the infant mortality rate has been reduced to half, malnutrition has been dropped by one third, the number of out-school primary school children which was almost a half of the whole before has been reduced to one fourth and lack of access safe water in rural areas has become one out of four from nine out of ten. But despite all this success, still one fourth of the world population lives in poverty (U.N.D.P., 1997). For this reason, for the 1990's in regard to the developments achieved two critical issues have been the

alleviation of poverty and the protection of the environment. These issues on the agenda mainly come out in developing countries, and the transfer of the economical resources of the developing countries to the developed countries by different means makes the problem even greater. Poverty forms the cause and effect relation, one of the leading problems of global environmental issues. Rapid population growth, land consolidation and agricultural modernization in fertile agricultural areas and inequalities in land tenure have caused more and more people to migrate to less productive areas or urban places. Depending on these, opening the farmland after deforestation, plantation on steep slopes and land erosions are the outcome. In lands where traditional agricultural technology is applied, high population growth forces the limited resources to be divided to decrease continuously, and this period in time, in areas where fragile environmental conditions exist leads to environmental degradation and poverty getting into a spiral. On this context, the poorest people of the world live in two areas; remote and ecologically fragile rural areas and the edge of growing urban areas (Leonard, 1989; Bartone, 1991).

Urban poverty covers an important part of the discussions about poverty. Increase in urban poverty has been one of the most remarkable trends throughout 1980s and at the beginning of 1990s. In a great number of places in the developing world, macroeconomic adjustments, inefficiencies in the urban economy and misallocation of public resources make the urban poverty grow faster than rural poverty. In developing countries, modern manufacturing industries, commercial centers, and service industries are concentrated in city centers. In the urban line surrounding it, "shadow cities", where the poorest of the poor live, are formed. As a result of the high economical rents appearing in servicable areas and decrease of land owning the poor is pushed out of the city and this urban line becomes subjected to natural and artificial ecological threats. When the physical environment deteriorates in and around the city, those who are most affected are the urban poor. On the other hand, the poor must often pay higher prices for food, shelter and essential services depending on budget restrictions, and financial reforms. Among the poor; the women, children and the elderly are the mostly affected group in regard to environmental threats (W.C.E.D., 1987; Leonard, 1989; Campbell, 1989; Bartone, 1991; Bartone, Bernstein, Leitmann, Eigen, 1994; Gilbert, 1994; Drakakis-Smith, 1996; World Resources Institute, 1996; HABITAT, 1996). This figure about the poverty in the world shows the poverty, the most important and the urgent problem of the 21<sup>st</sup> century, especially the poverty experienced urbanly.

On the other hand, with the sustainable development discussions, in regard to threats facing especially the developing countries, the role of the cities and urbanization subjects hold an important place. Cities are the powerhouse of economic growth in developing countries. In this context, urbanization is one of the basic components for the countries to reach a stronger and more balanced statue and development (Bartone, Bernstein, Leitmann, Eigen, 1994; HABITAT, 1996). Most of the big cities in the world also contain big economies. Production activities seem to focus in urban centers. In developing countries 80% of GDP growth is expected to originate in cities (Bartone, Bernstein, Leitmann, Eigen, 1994; World Resources Institute, 1996). On the other hand, cities play a crucial role in urban transformation. Cities are the artistic, scientific, and technological innovation, cultural and educational centers. Although cities play a key role in the development process, they can also be unhealthy, inefficient and inequitable places to live in. Third world countries face the problems of lack of safe water, inadequate waste management and pollution control, accidents linked to congestion and crowding, inappropriate use of land, loss of the historical inheritance, occupation and degradation of sensitive lands and the interrelationships between

these problems. The pressure created by the rapid demographic and economic growth threaten the ability of cities to respond with efficient policies and sufficient infrastructure and services. In city centers of most developing countries, basic environmental infrastructure and services in the megacities or in secondary urban centers are becoming increasingly difficult to be met. The environmental consequences turn into negative impacts on human health, the quality of life, the productivity of the city and the surrounding ecosystems. In developed city centers, on the other hand, housing problems, unemployment, crime and violence and unqualified labour force in cities are the basic problems (W.C.E.D., 1987; Leonard, 1989; Campbell, 1989; Bartone, 1991; Leitmann, Bartone, Bernstein, 1992; Cohen, 1993; Bartone, Bernstein, Leitmann, Eigen, 1994; Drakakis-Smith, 1995; World Resources Institute, 1996; HABITAT, 1996). As a consequence of having to face such many sided problems, for each city, special priorities, policies and actions are needed as the most urgent issues.

One of the mostly discussed problems about sustainable development is the energy use. Energy use poses a basic dilemma in achieving sustainable development in both developed and developing countries. While it is necessary to use energy for economic growth, hydrocarbon energy resources, which is estimated to be 91% of the consumed coal, petroleum, natural gas and electricity and 95% of which is used in developing countries, causes local and global pollution (Abdalla, 1994). Energy demand in developing countries increases in accordance with the rate of increase of the world consumption, but it increases faster than those in developed countries (Abdalla, 1994; Schneider, 1994). Although energy demand in developing countries rises more than those in developed countries, the developed countries still use the majority of the total commercial energy. According to the figures of the 1998, 20% of the world's population uses 60% of the total commercial energy, while the rest 80% uses about 40% (World Bank, 1998). In general, energy demand in developing countries is supported by population, economic activities and growth of GNP and the growth of economic outcome lead to rapid expansion in industrial activities. These factors uniting with the increase in urbanization rate lead to a sharp increase in demand for motorised transport. In meeting the energy needs in developing countries, traditional fuels or wood, 'biomass' which is used to name products such as cane waste, charcoal, animal and vegetable waste and plantation waste hold an important place. These kinds of fuels are estimated to cover home energy needs in small urban centres ranging between 25% and 90% (World Resources Institute, 1996). But it is quite difficult to estimate the real importance of these fuels as most of them are collected non-officially and because their consumption can not be estimated with the statistical values obtained. In most developing countries industry holds a major share in commercial energy demand. Service sector becomes increasingly important, industrial production volume keeps expanding in most of these countries and a growth in energy demand follows it. Transportation sector, especially since 1980s has contributed to the growth in energy demand greatly. The residential sector has also contributed to it less than that but still a considerable amount. If traditional fuels are added, residential energy demand becomes more important. Expansion in residential energy demand is also encouraged by the policies of keeping the prices uneconomically low. Under these different pressures, energy demand is expected to increase at an average annual rate of over 4% between 1991 and 2010 (Schneider, 1994).

Different and multidimensional problems of the developing countries mentioned above point out the importance and different conditions of the sustainable development. Although environmental concerns of the developed and developing countries are common, the quality

and quantity of the problems faced, and economic, social and cultural values bring about differences in the policies applied. In other words, these different characteristics and policies have differed the meaning and conditions of the sustainable development for developed and developing countries.

While developed countries dealt with the environmental problems during economic growth, the developing countries met these problems just as they were directing their attention fully to development. In developed countries, the environmental problems are based on rapid development and industrialization, whereas in developing countries they result from insufficient resource use, low income, unplanned urbanization, unbalanced and unplanned industrialisation, land choice for industry and land use. In addition to these, as the problems resulting from environment and threatening human health have exceeded the national problem parameters, and parallel to this the tendency of the legal, governmental and financial precautions to get international has forced both developed and developing countries to take costly precautions. According to estimations, in developing countries the cost resulting from only pollution has reached 5% of GDP (Pearce, 1993; Bartone, Bernstein, Leitmann, Eigen, 1994). The fact that both environmental problems and economic growth are unaffordable by these countries gives rise to political and economical difficulties in solution of the environmental problems (Pearce, 1993; Bartone, Bernstein, Leitmann, Eigen, 1994).

Most of the developed or industrialised countries, cities have a global capacity for extension and related to this they can also extract their resources and energy from long distances leaving a great deal of effect on the ecosystem of the land. Besides this, in the cities of developed countries, there is damaged infrastructure and the risk of deterioration in the city. But most industrialised countries have the possibilities and sources to prevent urban deterioration and economic degradation depending on this and most city centers of industrially developed countries have improved recently. Besides this, advanced technology, stronger national economy, and developed institutional base, etc, have helped the potential of development for the developed countries. On the other hand, developing countries are not the same. They have a huge urban crisis. Settlements, in other words, a network consisting of cities, towns and villages cover all aspects of the environment and in the international context, the major cities of the world constitute a network on both investment and sale of many goods and services. Cities are the first ones to join the network through the airports and seaports; new technologies soon follow them, first applied in metropolitan cities and then in smaller ones. Cities can attract investments and production goods for the world market when they are attached to this network closely. But natural evolution of this settlement network causes anxiety in most developing cities. In these countries, with the excessive growth of one or two cities, there is the anxiety that there will be unbalanced growth, regional differences will come out and economic and social disturbances will be around. While cities are the places where environmental problems are intensely experienced, they are also the places where there are opportunities for solving environmental problems and decreasing their negative effects. Both developed and developing countries experiences show that the most effective approach for confronting urban environmental issues is to formulate an urban environmental management strategy and action plan (W.C.E.D., 1987; Bartone, Bernstein, Leitmann, Eigen, 1994). Urban environmental planning and management approach is based on participation, building commitment and choosing effective policy interventions. Generally for all cities, specifically for cities in the developing countries the subject vitally important is the urban development models. Development strategies are special to all countries and related to the region it is in, so there can not be a standard

model. A successful model for a city might not be suitable for another one. Even if technical help is obtained from the central government, the reflection of the local region's needs, customs, urban forms, social priorities and environmental conditions can be achieved by a strong local government. But local governments have not been given the political power and access to revenues needed to perform their functions. But again, in recent years some urban governments have been more effective than national governments (White, 1994). Especially for the cities in developing countries, it is vitally important to form new urban environmental planning and management methods in order to set up local government network.

As a result, the characteristics of the problems the developing countries are facing and the different conditions in each country make it necessary to find special solutions for this country. Depending both on the specialities of the country and differences of local conditions in the country, the methods to be applied might differ. On the other hand, when applying suitable programs, it is important to consider development and environmental issues in all details.

## **2. THE PROBLEMS OF ENVIRONMENT, DEVELOPMENT AND PLANNING IN TURKEY**

In Turkey, a developing country, similar problems have been experienced. Rapid population growth, urban migration from the rural areas and rapid urbanization, misuse of natural resources and problems such as environmental pollution are the leading problems of Turkey. These problems handicap planned development and decrease the development rate. Rapid population growth and environmental pollution appearing from urbanization, at the beginning of the 1970s pollution in Golden Horn, Izmit and Izmir Bays, air pollution in Ankara and a lot of air and water pollution following them have been on the agenda. Migration to the cities which started in the 1950s when modern machinery was started to be used and as a result of this migration the population accumulating in big cities has made it impossible to have a planned and healthy urban development. Depending on migration, unprecedented rise of population caused inadequacy of infrastructure and rapid deterioration of urban environment. Rapid industrialisation, inappropriate land use decisions and industrial wastewater which is discharged without any treatment to the receiving bodies have caused environmental pollution. On the other hand, loss of soil and erosion, decrease in the quantity and the quality of the forests, the pressures of urbanization and tourism activities have been the other major problems of Turkey (Ministry of Environment, 1992; U.N.D.P., 1995; Environment Foundation of Turkey, 1999). Development and environmental problems of Turkey are shown on Table 1. numerically. The table has been formed with the data of the State Institute of Statistics and reports from different institutions.

Evaluations of the environmental problems in Turkey started with the IIIrd Five-Year Development Plan of the State Planning Organization (1973). In the IIIrd Five-Year-Development Plan, environmental problems were accepted to be related to the development problems, but by putting these forward it was stated that it would not be accepted to slow down the development efforts, and it was also mentioned that with the international work and legislation it would not possible to divert Turkey away from its paths to leading development through industrialization. Apart from this, it was stated that not being able to employ the great migration to the cities is the basic reason why urbanization is demographic and disorganised and this kind of urbanization form does not carry the characteristics necessary to include the environment in economic and social development process and

integrate the social and cultural change of the environment with national economy. The reason for the emergence of the environmental health problem is unplanned settlement, lack of finance and education, rapid population growth and that the powers of the institutions are far from being necessarily efficient.

Table 1. Development and Environmental Problems of Turkey in Figures

Employment	It is necessary to create jobs for 1 million people each year.
	According to the statistics of 1997, 1 545 000 unemployed people exist.
	It is estimated that informal economy reaches 50% of the total economy and 7.5 million people work irregularly.
	44% of gross national product is irregular.
	Out of those employed in agriculture, 51% unpaid family workers, 71% of the unpaid family workers are formed by women.
	79% of the children employed are working as unpaid family workers.
	78% of the children who work as a wage earners and casual workers work more than 40 hours a week.
Urbanization	59% of the population live in cities.
	Annual population growth rate in big cities is over 40% . .
	Every year 650 000 people migrate to Istanbul.
	Informal housing is estimated to be around 1 750 000 in the 1990s.
	36% of the southwest coasts are covered with secondary housing.
Energy	26% of the energy need comes from coal and lignite, 56.5% from petroleum and natural gas, about 85% from non-renewable resources.
	61.4% of consumed energy is imported.
	In 1990 carbon emission resulted from fuels is 54 million tons and carbon emission for area is 70 ton/km <sup>2</sup> .
	In 1990 sulphurdioxide emission 1 560 000 tons, nitrogendioxide emission is 772 000 tons.
	55% of the sulphurdioxide emission results from thermal power plants.
Air Pollution	With the amount of 20.3% industrial installations cause sulphurdioxide pollution following the thermal power plants.
	1990-1996 SO <sub>2</sub> concentrations were exceeded in short term limit value more than 200 times in Erzurum, Kutahya, Istanbul and Sivas.
Water Pollution	In 1992 the water loss in water networks was 50% .
	Many rivers, such as Ergene, Meric, Nilufer, Gediz, Sakarya and Porsuk have IV. class extremely dirty water.
	From Bursa Organized Industrial Zone each year 3.5 million cubic meters wastewater is discharged without treatment into Nilufer stream.
	In 1989 in the river Gediz about one ton of fish died of pollution.
	Seyitomer Thermal Power Plant discharge of 6.5 tons of particulate matter per day into Porsuk stream.
	In 1992 18.2% of the sewage from the industry, 73.6% of it into streams and seas respectively is discharged
	87% of the Black Sea is covered with oxygen-poor water.
	The total amount of wastewater discharged into the Marmara Sea from various sources is estimated to be 766 million m <sup>3</sup> /year.
	Organic matter equivalent to close to 158 000 tons of BOD and 370 000 tons COD discharged annually into the surface waters of the Bosphorus at its junction with the Marmara.
	Eagean Sea is faced with a pollution load equivalent to that of a populationthreat of 27.5 million people originating from Black Sea through and Greece.
	Total annual discharge into the Northeastern Mediterranean by rivers and sewage canals is 36 300 million cubic meters, over 90% of these originates from Turkey.



Solid Waste	In 1991, 9073 tons daily garbage of collected by municipalities were disposed of in rivers, seas and lakes.
	78% of municipalities having a dump area stated that there were some problems related to the dump area and as a whole 22 municipalities stated that there was a risk of explosion at the dump area.
	All over Turkey 75% of industrial establishments there is no wastewater treatment plant.
	85% of the industrial establishments have no discharge licence, 77% of the industrial establishments have no licence for gaseuse emissions.
	54% of the industrial establishments discharge their wastewater without treatment into the seas, rivers or city sewerage.
	211 000 tons of treatment sludge is discharged into the sea.
	77% of the establishments, 92% of the householders keep their waste in non-suitable buckets or plastic bags.
Soils	91% of the soils faced with erosion.
	Annual soil losses in Turkey are estimated to be around 500 million tons.
	62% of the land allocated for organised and small industrial establishments, and 69.5% of the land allocated for tourism activities is located on fertile I.-IV. class agricultural land.
Flora-Fauna	In Turkey 12 species of plants have become extinct, and 46 endemic and 60 non-endemic species of plants are classified as 'endangered'.
	As a result of the new legislations between 1950-1989 1 372 034 ha. forest have been destroyed.
	55% of the deforestation is done through new legislations.
	Every year 13000-15000 ha of forest burns, 4000-5000 ha of farmland are transformed into agricultural land 3-4 ha are opened to the settlements.

In the IVth Five-Year Development Plan (1979), by considering the environment as a factor, it is stated that the problem will be solved before it is created, and in case of solving the present problems, the most suitable approach to the social-ecological structure will be chosen by considering alternative solution It is stated that the common problems in Turkey such as water, sewage, land and forest erosion are known, but it is not known what the most suitable methods are in dealing with them economically and socially, what the absorbing capacities for the ecological basins of this pollution and renewing themselves are, it is known that environmental standards differing in relation to ecological basins can not be developed, and as there are no statistics to take advice and precautions for healthy decisions there are different forms of applications. Besides this, as a result of industrialization and demographic urbanization it is emphasized that environmental health problems should be given importance and solution to them has not been found due to lack of efficient co-ordination among institutions.

In the Vth Five-Year Development Plan (1985), the notion of sustainable development is not stated explicitly but it is implied that the basic approach about environment should not be to get rid of the present pollution and prevent future pollution, but by considering the ecological balance resources should be preserved and developed to be used by the future generations.

In the VIth Five-Year Development Plan (1989), it is said that the basis will be the fact that when performing economic and social activities, the human and natural resources should not be used wastefully and environment should be protected, natural resource management should be achieved by allowing an economical sustainable development which protects human health and natural balance should be a suitable natural, physical and social environment left. About planning, in all stages of designing environmental dimension will be considered and construction law will be revised by considering environmental interaction dimension.

In the VIIIth Five-Year Development Plan, it is stated that although sustainable development approach is accepted in the VI. Plan, in realising institutional and legislation arrangements to form environmental management, in providing coordination among the responsible institutions data system during its formation has not reached the desired level and environmental elements needed local, regional and central policies and strategies in order to manage a sustainable use. Besides this, regional development studies and physical planning should be prepared within the limits of environmental factors and sustainable development idea by considering ecological balance protection, and with hierarchical planning structure and a development approach which should be in accordance with development planning and which should protect not only ecosystems, but also cultural and natural assets and for this reason could make local resources active is needed to be formed. It is also stated that in regard to planning, the aim of the present planning system is restricted by the settlements of the construction, the environment in this plan only means limitations of developments in the same areas, that modern environment and ecological elements are not included in the system some changes that will bring out the characteristics of the cities will be made in the standard construction regulations which until now have caused the formation of single type of cities. The mostly emphasized subject in the VII. Five-Year Development Plan is that regional planning approach has been neglected so far. By calling attention to the adversity brought by the lack of planning stages between development planning and urban development planning, as each region has different opportunities, specialities and problems, it is vital to have a new planning approach which includes sectoral choices and spatial analysis.

During that period around development plans, it is seen that environmental policies at first aim at stopping pollution, following pollution preventing policies. With the development of this, firstly environment law and all the other rules and announcements have had contributions. With the environment law that was passed in 1983, environment protection was legalized. Environment law has the character of a frame law, show technical and lawful precautions to prevent environmental pollution and the implementation of the law is carried out with regulations. Besides Environment Law and regulations with the Construction Law at the top, Tourism Law, Law of Conservation of Cultural and Natural Assets, Coast Law, Forests Law, Law of the National Parks carry great importance. Turkey has also signed many international treaties depending on the activities such as Mediterranean Action Plan, Black Sea Action Plan and Rio Conference. Among these international treaties, International Convention for the Protection of Birds (1950), Convention on Internationally Important Wetlands (1971), Convention on Protection of World Cultural and Natural Heritage (1972), Convention on Protection of Mediterranean Sea Against Pollution (1976), Convention on Conservation of European Wildlife and Natural Habitats (1979), Protection of the Ozone Layer (1985), Protection of the Black Sea Against Pollution (1992) are some of them.

In parallel with these legal framework, in 1991 Environment Department was turned into Environment Ministry and the Ministry organized three meetings first in 1991, then in 1994 and finally in 1996 named 'Environment Meeting', environmental problems, environmental policies, environmental management and environmental legislations were discussed and future strategies and environmental policies were tried to be sorted out. Besides this, Ministry of Environment, TUBITAK (The Scientific and Technological Research Council of Turkey), State Planning Organization prepared and had the universities produce projects; conferences held by universities, chambers and non-governmental organizations (NGO)

have all contributed to the discussion of the environmental problems. As a result of all these discussions, it was decided to be necessary that a 'National Environmental Action Plan' should be prepared and State Planning Organization started to plan this. This study of the State Planning Organization still continues. If National Environmental Action Plan is completed and implemented, and especially if it can achieve to take necessary precautions, this can be a turning point of environment, environmental policies and environmental planning in Turkey.

### **3. THE CONDITIONS ON SUSTAINABLE DEVELOPMENT, PLANNING AND PRACTICE FOR TURKEY**

For Turkey, sustainable development conditions appear with development and environmental problems mentioned above and in the framework of legislations. On one hand, the problems of Turkey require urgent precautions in the way of development and action plans, on the other hand, with the laws and administrative structure insufficiency of the present conditions of planning make the struggles on the way of solution difficult and cause delay.

Although there have been attempts to solve the problems, the reason why it cannot be achieved is mainly because of the lack of organized environmental management in Turkey. It can be seen that in Turkey legislations, regulations and rules about environmental problems and precautions are disorganised and dealt with different relations and there is a complexity in authority. According to some findings obtained by the Ministry of Environment in 1994, in Turkey there are 81 laws, 6 legislations, 32 international convention, 37 rules and 28 regulations about environment existing making the number totally 184 law items. According to the findings of State Planning Organization, the number of institutions and establishments about environmental protection and development is 36. As the regulations about environmental protection is disorganised and it is included in different regulations, legislations and laws, it causes contradictions and authority complexity with the high number of institutions and establishments. Today, environmental protection and improvement, solution of environmental problems and environmental planning subjects have not been achieved an coordination in the institutions and establishments and integration in the planning system and an organisation at which it is possible to rule from one place has not been reached.

On the other hand, in the protection and improvement of the environment, the importance of construction plans and plan applications have not been recognised. In legislation sources about construction planning there are no items sensitive and protective to the environment and improving it. Apart from this, problems faced in the planning and application process make the environmental problems difficult to be solved. As there are no regional plans in Turkey, the fact that macro and micro plans can not have the same base, and with the small scaled plans because of the partial structure of planning which is generally done sectorally, lack of parallelism and completion exist among plans, also the present construction law which considers the settlement and environmental interaction and does not reflect these on the plans, the fact that with standard construction regulations site and city characteristics can not be specified, the first step of planning is investigation and data collection, it contains difficulties as it has no environmental inventory, change of plans depending on political choices, the lack of the participation to this period, although planning is a team work, urban planning responsibility is given to one planner only, have all caused difficulties in planning process. The problems appearing in the planning process continue during the application

level, and there can not be any coordinations among the institutions which will apply the plan, they have often changed the plans as a result of political pressures and land speculations arising from the preplanned changes make the applications more difficult. Another subject affecting environment-planning relation negatively it has been made possible to produce such plans called 'Construction Plan for Tourism', 'Special Conservation Zone Plan' for the same area and 'Conservation Plan' for different sites, and under the name of environment protection, planning authorities have been made possible to be used for interests of people.

Environment Law which was passed in 1983, was prepared comprehensively but as it was not given enough opportunities to apply, it is not efficient. Besides this, most regulations carry punishment about environment protection, in other words, punish people after the environment is deteriorated. Also financially this money is not reflected in the budget and can not form a serious fund and as a result as regard to environmental precautions economic tools can not be used rationally.

The meaning of sustainable development and its conditions can be evaluated to find out the development and environmental problems as mentioned above being lawful and administrative structure, and problems appearing in the planning process and application which can be called the handicaps for sustainable development. But, when Turkey is compared with the other developing countries, it has a higher income level, and there is a very dynamic development period experienced and rich natural resource potentials offer some opportunities for the problems to be solved more easily. Turkey can solve the problems which the industrialized countries face well and if it can benefit from their experience, it can have a potential to develop an improvement model suitable to itself.

#### **4. CONCLUDING REMARKS**

The problems which the developing countries face prove the importance of sustainable development for these countries and put forward different conditions and characteristics of the problems and economical, social and cultural specialities make the policies to be applied different. Among the most important problems of the developing countries; low economic growth and unemployment, poverty, rapid population growth, migration from rural areas to urban areas, rapid and unplanned urbanization, environmental pollution, inadequacy of infrastructure and services, deterioration of natural resources can be mentioned. Most of the problems increase in urban areas depending on people potential and needs of this potential, so urban places are the areas which are affected by environmental problems most and where, with urban expansion and the conversion of land to urban uses, the environment is affected mostly. As the problems in urban areas are multi-dimensional, for each city special priorities, policies and activities, in other words, an effective urban and environmental management is needed. For such a management, an approach which will handle the complex structure of natural, social and economic relations in a wide scope, and a development plan specific for each city are needed.

As a developing country, in Turkey similar problems emerge just as in other developing countries. Rapid population growth, migration from rural areas to urban areas, destruction of natural resources and environmental pollution, etc., are the leading problems of Turkey. The most common environmental problematic areas have been the cities and rapid urbanization has brought about social, economic and environmental problems; unplanned urbanization,

inadequacy of infrastructure and services, deterioration of natural resources, destruction of agricultural and forestry land have called attention. Physical and environmental problems combined with social and economic problems interacting with each other have become extremely difficult to tackle, problems appeared in planning and application process have made the solutions of environmental problems more difficult.

For Turkey sustainable development conditions appear with development and environmental problems and approaches to these problems and legislation framework, as mentioned above. On one hand, the problems of Turkey urgently require precautions and action plans in the direction of development, on the other hand, with the laws and administrative structure in this frame, insufficiency of the present conditions of planning make the struggles of solution more difficult and delayed. Within the frame of the approaches and laws mentioned above, in Turkey the way the environmental problems are handled, solutions and the future issues in the planning system gain importance following below:

- New environmental agenda requires a fundamental shift in the character of urban planning. The planners instead of being in preoccupation with the negative results of economic development, being in much greater involvement in the needed policies and actions which could avoid creating problems,
- With new environmental agenda, planning methods, its contents and techniques should be evaluated again; concepts like carrying capacity and thresholds should be focused on and commented in the planning process,
- Forming ecologically effective, economically viable, socially acceptable urban restructuring and integrated strategies and concepts should be formed,
- Instead of sectoral and partial approaches, integrated and comprehensive approaches should be accepted, the lack of planning stages should be covered and regional/basin planning approach should be adopted,
- Natural resources management should be dealt in the level of basin, environmental management units should be formed, systematic watching and observation programs should be done,
- What the central government might need, the thing reflected in urban development plan, local area's needs, customs, urban forms, social priorities and environmental conditions should be supported by local government technically,
- Disorganized environmental regulations should be collected, the dilemma should be solved, including environment, settlement and planning law is needed,
- All legal resources should be revised and necessary regulations should be included for an environmentally sensitive planning,
- Revision of the present social and technical standards and the gaps should be filled in,

- Apart from Ministry of Environment, attached to this ministry, General Directorate, Regional Directorate and Urban Directorate of the ministries and urban management offices, municipalities should be coordinated,
- Effective use of energy resources as a clear aim of land use plans and in the preparation of the plans, alternative policies including energy should be considered,
- Taking out inventories about natural, historical and cultural assets, the present ones should be collected and expanded,
- Soil surveys should be up-dated, problems related to soils should be defined and all over the country land use planning should be done,
- Environmental Impact Assessment should not only include certain areas and it should be applied in all areas and combined with construction regulations,
- The regulations about punishment after the environment is deteriorated should be revised with the main principles covering the prevention of potential environmental problems,
- In order to make environmentally sensitive planning, urban and regional sustainability conditions should be supplied with Geographic Information Systems and statistical data bases.

Among the future priorities mentioned above, 'environmentally sensitive planning', which comes out with planning or new environmental agenda, is one of the most important topics to focus on. For an environmentally sensitive approach, a basin/regional planning and management in which all ecosystem components and their interactions are considered as a whole, and the limits match with the ecosystem in subject become important.

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