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AN AGENDA FOR URBAN AIR POLLUTION OF ENVIRONMENTAL PROBLEMS AND POLICIES: THE TURKISH CASE ^(a)

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ABSTRACT

Population growth, industrial development and environmental pollution, which threatens natural resources in every country on earth, have made environmental problems one of the most important concerns of man in the last quarter of the twentieth century. Inventories of environmental problems are a working method in several developed and developing countries. In some countries, in fact, in addition to organizations concerned with the problems themselves, there are also offices whose special function is to conduct inventories of the problems. Such a need has also been felt in Turkey, where environmental problems have recently received increased attention-especially air pollution. The principal goal of my report is to analyze the urban air pollution which connected with environmental policies. The problems of urban air pollution and environmental policies in Turkey is also among my objectives.

INTRODUCTION

Air pollution can be defined as the quantity of pollutants sufficient to cause injury to human beings and other living creatures and damage to objects. Pollutants may be in the form, air pollution standards by both international organizations and many countries. The rapid urbanization that has been taking place in Turkey, particularly since the 1950s, is one of the most important causes of the country's air pollution. The pollution in cities is known to arise to a large extent from heating systems, combustion techniques and poor fuel quality. Among the development affecting air pollution in the cities, many other factors play major roles besides population density. Some of these include incorrect urbanization for topographical and meteorological conditions, incorrect division of urban land into lots, low-quality fuel and improper combustion techniques, a shortage of green areas, an increase in the number of motor vehicles and inadequate disposal of wastes.

1. GENERAL POLITICS AND PROBLEMS OF ENVIRONMENT AND URBANIZATION

The problems of environmental deteriorations are named environmental problems in general and one of the most issues that human being have faced fill now. Human being, for the will of diversion of environmental towards its desires and necessities, has always been in interaction with it rather

ecological balance, depletion of resources, high pressure over it and some other wrong policies inter-resistance of environment to caused leading "a chain of sophisticated and extensive problems" named environmental problems.

There have been several reasons for environmental problems related to mentality, increasing population, industrialization, urbanization and tourism. The efforts of humanity to dominate and to use unlimited power have increased with industrialization and in the same course have dominated the world. In that respect, while Descartes formed a theoretical outline for the 17th century, Isaac Newton laid a foundational method of scientific approach that lasted to the 20th century.² The mentality that developed with Einstein's Quantum Physics was supported and developed by Darwin, Marx and Freud,³ who were the founders of modern social approaches. These developments have also increased production and economic growth. As a result, urbanization has had more importance and encircled the entire world. Modern urbanization, with all its problems, has started to be called "untidy" or "unhealthy".⁴

Since a high degree of interaction happens between economical activities and environment, environmental problems are economical based in essence. Population explosion, rapid and unbalanced urbanization, industrialization over consumption and such phenomenon all together with main reasons, the economic ones, enlarged the dimensions of environmental problems. Over consumption of some free natural resources, negative externalities of economic activities, advantageous production of monopolies disregarding pollution and such that placed environmental problems to the focus of the local, regional, and international discussions.⁵

Globalization is a multifaceted phenomenon with economic, political, cultural, and social dimensions. The most talked about dimension, economic globalization, can be conceptualized as a set of processes that are leading to the increased integration of factor, intermediate, and final product markets, coupled with the increasing salience of (multinational enterprises) MNEs' value-chains in cross-border economic flows.⁶ There is much debate today about the force of globalization or global environmental governance. Politically, however, we still define ourselves as citizens of a particular nation state. What influence does this nation state have in a globalized world? What is the reach of national environmental policy in times of globalization?⁷

Much recent scholarship in international environmental policy falls into two camps. One group, the "vertical institutionalists," emphasizes the role of international rules, norms, and regimes in constraining state sovereignty.¹ Another group, the "horizontal diffusionists," argues that policy innovation occurs chiefly at the level of the nation state and is diffused horizontally through mimesis, benchmarking, and networking among similarly situated, primarily national-level decision-makers (see also Biermann and Dingwerth, this volume). Both approaches, however, share a common underlying orientation: each takes state sovereignty as a bedrock principle. Sovereign states are presumed to be the natural locus of decision-making, although their behavior may be influenced horizontally by inter-sovereign best practice standards, or constrained vertically by supra-sovereign rules and norms. The common point of departure, and the central preoccupation

Environment has stood as one of the most-discussed subjects in recent years with its multi-dimensional problems-economic, social, political, cultural and etc. The observations and efforts on protecting the environment and living in a healthy atmosphere, parallel with the growth of environmental problems, have increased and politics on this point have taken place in various articles. Most of the people living in cities—in other words, about $\frac{3}{4}$ of industrialised world population and half of the people on earth-face with such kind of problems day by day.⁹

Industrialization and urbanization are the main source of environmental problems. By industrial revolution, the idea of dominating environment came into being. Industrialization at first by industrial wastes caused depletion of forests and other resources, extinct species, air, water and noise pollution. Besides it brings some other problems as well. Urbanization and industrialization are supposed to be the two fundamental causes of environmental problems. This two causes, though the characteristics and the dimensions are different, are also concerned with the environmental problems not only in developing countries-such as Turkey- but also similarly in developed countries. It consists of the problems and qualities especially on “non-industrialization” and “urbanization-not parallel with-industrialization”. Environment is the main problem among the others.

Turkey came across with the environmental problems later in contrast with that of industrialized countries. Since the last period of 1970s, environmental problems have reached the level to threaten men's health especially in urban areas and coastal regions. Therefore this point has been taken into consideration within the framework of the politics developed parallel with the rising of problems. Environmental problems have seriously been derived from industrialization and urbanization.

Pollution occurring on earth, air and water due to industrialization has entered into the minds and thoughts unobtrusively. Rush to the cities after industrialization made the cities become the center of environmental problems after a while and the administrators of these cities become primary collector. Rapid urbanization causes various problems in cities such as transportation, air pollution, traffic jam, housing problems, wear of historical and artistic works of art and increase in crimes. Therefore pessimistic opinions claim that urbanization of the twenty-first century will transform into Necropolis unless the necessary precautions should be taken. Administrators of the cities are responsible for directing the urbanization and removing the negative effects. Cities should be easy enough to make the people enjoy themselves and to provide comfort and happiness and to create a comfortable working atmosphere.¹⁰ Local governments, which are effective, productive and democratic governing units, and democracy are closely related with each other. Local government play an important role on the solution of environmental problems and many others as well. These problems provide in-put for the local governments as the problems caused by urbanization and industrialization are mostly of residential areas. To meet local and common needs of people are what the local governments exist for. Living in a healthy atmosphere is one of the most important needs of the society.

Local governments generally perform in the fields of cleaning and health services.¹¹ When we have a look at the environmental problems

continuing its effects in those areas, we come across with a list of problems such as becoming unforested, climatic changes, devastating green fields ecological structure, urban poverty due to infrastructure, sea pollution and insufficiency of the solid – material administration. These widespread problems require extended politics and efforts for solution. The environmental problem, which is a global fact with its characteristics, widens the responsibilities of both local governments and city councils so as to serve more dynamically and the administrative units become important actors of the politics of environment

2. URBAN AIR POLLUTION AS A PART OF ENVIRONMENTAL PROBLEMS AND POLITICS

Urbanization is a fact that intensifies the density of population. Air pollution caused by urbanization derives from the density of population and also unsuitable topographical and meteorological settlement. Heating system in cities, the peculiarities of this system and kinds of heating fuels are the main items determining the air pollution. Private automobiles, taxis, buses, other transportation vehicles and exhaust gas cause air pollution.

The first and the most astonishing example of pollution, which is caused by the stable and mobile factors in the city, is the air pollution in London. 4000 people died since the air could not clean itself in return to the increasing pollution level of static air stratum on the city as the polluted air mixed with fog. Meanwhile, air pollution reached to drastic figures in the big cities such as Los Angeles, New York and Tokyo.¹²

Today, increasing pace of urbanization, which is disorganized in majority combined with the deficiency to resolve the disordered housing, increased all problems related to the urban space. The deficiencies of infrastructure, rapidly increasing domestic churn, unhealthy houses as a result of rapid urbanization; and going beyond the natural absorption capacity because of condensation aggravate the physical and social environmental problems. The urban air pollution emerged during this process causes problems to human health, nature and climate since it affects animal and plant groups and structures. Moreover, it leads to global problems such as greenhouse effects and diminishing ozone layer.

A feasible communication, planning, coordination and monitoring system in both the private and public spheres; and administration of environment to run such as system in order to provide a healthy and balanced environment for all living bodies and to protect, utilize and enhance the natural resources form the basis of environmental policies. This process includes all functions such as execution, planning and monitoring in relation to the protection and development of environment in the framework of mission areas of central and local institutions.

Various approaches in different countries strike us in terms of the environmental policies. The same differentiation exists also for the environment professionals, scientists, writers, thinkers and ecologic political parties. The political regimes of the countries being a multi party parliamentary democracy or one party authoritarian regime and their economic system as a capitalist, socialist or mixed economy have implications on the environmental policies just as other policy areas.¹³ There are three ways in terms of organization for the environment around

the world. A Ministry of Environment exists in the countries like Netherlands, Italy and Great Britain. On the other hand, the environmental issues are under the responsibility of some central institutions different than ministries in the countries like the United States and Japan.¹⁴ Nevertheless, the environmental policies can be summarized as anticipatory and curative policies beyond these distinctions.

The first worldwide global environmental policies on the international level have been established with United Nations Environment Programme (UNEP), which is set up by the United Nations (UN) after the meeting in Stockholm in 1972. The relation between environment and economic development constitutes the essence of this policy. 20 years later, the state of the world has been reviewed during the Rio Summit in 1992. The titles of the global environmental policy in the Rio Declaration involves a wide content ranging from the right to development to environment sensitive development, from the right to healthy life to environmental costs and environmental implications. These principles, drawing the basic framework of an international environmental policy, function in determining a national environmental policy.¹⁵ The supranational character of industrialization has caused the environmental problems to be also supranational. As a result, the environmental policy has become increasingly effective on the international policy by the regulating principles and thus the international policy has become increasingly effective on the national environmental policy. The role of national policy is very significant as the authorized and responsible organ because it is the nation state, which is exposed to the international problems of ecology and economics. The nation state is also the one, which remains helpless in the face of world economy and its problems. The nation state has a vulnerable situation although it is the single big actor from global environmental protection.¹⁶ In this sense, world tends to transform itself from a community of nation states to a network.¹⁷

The global resolution proposals and solution exploration in line with the new dimensions of the environmental problems has acquired and goes on to acquire new contents in the framework of globalization, regionalization and localization dynamics in the mentioned process of change and transformation. Importance of urban management is increasing in the context of globalization-localization dynamics while these global problems put the environmental problems on the global level to the agenda. In this process, the role and importance of local actors and city administrators cannot be denied in the framework of solution attempts for environmental problems. Particularly, urban management acquires importance in the context of urban environmental problems. The urban air pollution is one of the most important problems. In this sense, urban air pollution as an urban environmental problem comes up with new responsibilities to both the central and local city managers in terms of the policies.

Today, local authorities have significant tasks in resolution of many problems having an urban dimension ranging from infrastructure to the socio-cultural sphere. The worldwide tendency, including our country, is in the direction of defining active responsibilities to local authorities in resolution of many problems related to urbanization and environment. Urbanization, environment and local authorities have the same spatial dimension from this aspect.

3. THE PLACE OF URBAN AIR POLLUTION WITHIN THE ENVIRONMENTAL PROBLEMS AND POLICIES IN TURKEY

3.1 The Basic Characteristics of Urban Environmental Problems and Policies in Turkey

Turkey, which is introduced to the drastic environmental problems in 1970s, has tried to clarify her environmental policies in the same period; and has reflected this situation to both legislation and texts such as development plans and government agendas. It cannot be claimed that Turkey has not made any significant progress in terms of the environmental policies whose characteristics are mentioned above in the last 30 years. The governments had to deal with such issues in parallel to increasing public awareness. However, the policies lack consistency, cohesion and decisiveness. With the same coin, they are far away from persistent and decisive political support for enforcement of the legislation. The Turkish environmental policies have always been curative and the necessity to have anticipatory policies is ignored. The environment theory as a curative policy is an environment perception, which is equal to precaution from pollution in its narrow sense. The interest in the environmental policies in the meaning of development of the environment going beyond precaution is a new understanding. Our environmental policies are also distant from being enforcing. The sanctions in the environmental codes are not applied properly to those who pollute the environment. This is as relevant to effectiveness of public administration and development level as our development understanding and methods.¹⁸

Frequent changes are observed in the environmental policies and environmental body of current law just as in the other areas in Turkey. The changes in the understanding and approaches to environment are reflected upon legislation and the executive organs have difficulty of adoption in the face of daily amendments. Conflicts, overlapping and similar problems in law occur because of the frequent changes in policies since they are formed without long term planning and scientific research. These negative consequences are particularly visible in its dimension reflecting on the administration and execution of policies is difficult.

Turkey is a developing country and therefore, she organizes her recent policies in line with this. However, it is wrong to perceive precaution of the environment in conflict with development targets. A long-term development targeting the benefit of the future generations is not in contradiction with the targets of environmental protection. Nevertheless, it is emphasized particularly in the Environment Code that protection of environment should not be an obstacle in front of development targets. Therefore, short-term development targets are realized at the expense of compromising from protection of the environmental values; and this leads to situations damaging the environment.

Another negativity in the environmental policies is the recent centralization. While an organization at the central level continues on this issue, even the traditionally local tasks such as public works and health are transferred to the center. The global tendency particularly in the context of information society process and dynamics of globalization/localization and democratization is in the opposite direction. The environmental policies

be in the form of a long term project in which all actors would have roles, the responsibilities would be distributed and the rights of central authority, local administration, occupational associations, private sector, voluntary organizations and individuals would be defined. The potential costs that will emerge during enforcement of environmental policies should be fairly distributed. The policies of "user pays" and "polluter restores" rather than the policy of "polluter pays" should be made dominant in the environmental policies.

Perceptual changes and parallel structuring are necessary for a successful environmental policy and administration in accordance with the characteristics of information society and localization dynamics caused by globalization. The environmental target is not extermination of environmental pollution; it should rather be prevention from pollution, protection of the environment and its improvement. A nationwide inventory of environmental values is required for this. The next task is to force the decision-making mechanisms to consider the targets related to the protection of environment. This should be applied to the development plans, regional development plans and industrialization-development plans primarily. It should be noted that environmental problems cannot be solved only through legislation without a positive outlook to the environment by macro decisions. As a matter of fact, big environmental problems emerge since Turkey's tourism and urban development policies are not applied appropriately.

Ignoring the implications of environmental legislation on protection and improvement of environment is wrong. Therefore, the existing environmental legislation should be reviewed, the inconsistencies, contradictions and conflicts should be prevented and it should be made executable. A working environmental management is a necessity even if the environmental policies could be applied without public participation. The authority and responsibilities of the coordination and execution unit on the central level should be constituted clearly especially by activating the local institutions. This might be a ministerial organization just as in the existing situation or new organizations might be formed. However, coordination of all environmental institutions on the national level is basic.

It is clear that protection and improvement of environment cannot be sustained by only legal precautions. Environmental awareness has to be raised. This cannot be provided through a top to bottom method, thus, many institutions starting with the official ones should inform the public opinion about the environment. Only by this way, a sensitive public opinion can be formed. Otherwise, verbal expression about the environmental responsibility of each citizen is not enough.¹⁹ The policies of protection of environment, newly emerging worldwide perceptions, institutionalization, techniques and technology should be watched closely. In this respect, observance of new management understandings, techniques and structures are important in the context of both pollution preventive technologies and consolidation of information society. Furthermore, local management and its basic techniques, tools and institutional infrastructure should be emphasized within the environmental policies. A positive approach to the environment has been included in the 8th Five Year Development Plan. According to this, protection of human health, ecological equilibrium and historical and

development. The primary action areas in the field of environment are to be identified, coordination among the interest groups during application is to be ensured, and primacy of social reconciliation in the resolution of the conflicts is to be highlighted. In the medium and long terms, national environmental policies and strategies should be harmonized with the European Union norms and international standards considering the national facts. The environmental management capacity and management tools are to be activated.²⁰

Such evaluation and targets related to the environmental management and policies are quite positive compared with the previous plans and they commensurate the above-mentioned processes. However, they should be handled in detail in the executive plans and should be applied effectively by preparing the institutional infrastructure. This is an obligation for Turkey whose relations with the European Union has reached to a certain level in the process of information society which has become distinctive with its technology and new management understandings and structures. The international and transnational cumulative characteristics of the environment and the outstanding international and regional organizations together with the fundamental principles and standards entail such an action.

3.2 Environmental Policies and Turkey- EU Relations

The fact that Turkey has developed environmental policy by considering the issue at the governmental level and has created an institutional structure is primarily a result of the influence of the 1972 UN Stockholm Conference on Human Environment. One may argue that the environmental policies of regional and/or global international organizations, such as the United Nations, OECD and the Council of Europe, continue to play an influential role in national policies of Turkey, a member of these organizations. It is observable that 1987 Brundtland report has also influenced Turkey's environmental policies and that a sustainable development approach has begun to appear in official government policy documents. This date is also significant for Turkey because it is the date that it applied for full-membership to the European Union (EU). Though the legal foundation for the relationship between Turkey and the EU were actually laid in 1963 with the Ankara Agreement, after Turkey applied for full-membership in 1987, Turkey-EU relations gained new momentum. From this date forward, there has been a multifaceted effort coordinated in Turkey by the Office of the Undersecretary of the State Planning Organization (SPO) to compare and harmonize Turkish statutes with EU legislation. This is evidenced by the fact that many environmental regulations published after this date demonstrate relative compliance with EU directives in terms of general goals and specific criteria.

These efforts gained new momentum with the Customs Union Agreement, which took effect in 1995. At the Luxembourg Summit in December 1997, where the new enlargement policies of the EU were outlined, provision was made for the preparation of a "European Strategy for Turkey", the purpose of which was to improve relations with Turkey and further intensify the Customs Union. As requested by the Luxembourg Summit, the Commission adopted on 4 March 1998 the initial

operational proposals of the "European Strategy for Turkey". The fact that Turkey was granted official candidate country status at the EU Summit in Helsinki in 1999 and included in the enlargement process resulted in a multi-dimensional acceleration in compliance efforts. One should expect a further momentum in these activities once that Turkey has been given a date for negotiations on 17 December 2004.²¹

3.3 The Place of Urban Air Pollution within the Environmental Policies and Problems

As in the case of almost all environmental problems, the two primary causes of air pollution in Turkey are industrialization and urbanization. Parallel with rapid population growth, there has been increased population density in the cities giving rise to more pollution. At the same time, sites for urban settlements and industrial installations have been improperly chosen. These factors have exacerbated the pollution problem. Furthermore, ignorance concerning environmental problems and the failure, despite everything, to give them adequate attention are gradually adding to the dimensions of the problem.

The rapid urbanization that has been taking place in Turkey, particularly since the 1950s, is one of the most important causes of the country's air pollution. The pollution in cities is known to arise to a large extent from heating systems, combustion techniques and poor fuel quality. Among the developments affecting air pollution in the cities, many other factors play major roles besides population density. Some of these include incorrect division of urban land into lots, low-quality fuel and improper combustion techniques, a shortage of green areas, an increase in the number of motor vehicles and inadequate disposal of wastes. The most conspicuous example of urban air pollution caused by heating systems is Ankara. Ankara is a city with many apartment buildings and shantytown districts, often immediately adjacent to each other, and is surrounded on all but its western side by mountains and hills. Consumption of coal and various kinds of heating oil cause excessive air pollution in the city during the winter months. Other cities in Turkey with increasing levels of air pollution are İstanbul, İzmir, Eskişehir, Kayseri, Adana, Gaziantep, Kocaeli, Samsun, Zonguldak, Trabzon, Erzurum and Diyarbakır.

Highway traffic in particular is known to cause more environmental damage than railroads. Hydrocarbon, nitrogen oxide and carbon monoxide emission as exhaust gases in cars, cause micro-climatic changes by increasing concentration of these pollutants. Furthermore, the emission produced at busy airports in and near the large cities create significant air pollution both in their immediate environment and in the surrounding residential areas.²²

Several actions are taken for prevention from air pollution in Turkey since 1970s. Ministry of Environment, first and foremost, and Ministries of Health and Energy are taking precautions against pollution. Apart from these actions, they collaborate with the related units of universities and some voluntary organizations in order to avoid from pollution. The actions for prevention from air pollution in Turkey should be revised. Resolution proposals can be produced within the existing structure although the

Modernization of old facilities and clean fuel usage has to be made compulsory. In addition to this, natural gas should be generalized and burning systems should be improved in order to avoid pollution emanating from heating. Exhaust audits of motor vehicle should also be generalized and the motor vehicles should be equipped with new environment-friendly technology in order to avoid air pollution caused by the motor vehicles.²³

CONCLUSION

There is a close relation between distinction of environmental problems and the necessity to find solutions; and transition to the planned development (1960). The global and regional developments are also linked to this relation. Conceptualization and execution of certain precautions are particularly *sine qua non* for the environmental policies.

The first action to be taken in this context is to ensure an environment-aware perspective to all decision-making mechanisms. These are especially central in application to the development plans, regional development plans, and industrialization-development policies. It should be noted that environmental problems cannot be solved only through legislation without a positive outlook to the environment by macro decisions. As a matter of fact, big environmental problems emerge since Turkey's tourism and urban development policies are not applied appropriately. The environmental problems are caused by the characteristics of urbanization in majority, and this type of urbanization, which is not concurrent with industrialization, is problematic.

The most prominent feature of environmental policy in Turkey is that it lacks consistency, cohesion and decisiveness. The articles in the constitution and legal codes will remain on the paper unless they are executed with a persistent attitude and stable political support; and therefore there cannot be a full-fledged environmental policy. Moreover, consulting with the mass population in Turkey in determining and applying the environmental policies is not consolidated just as it is in the other areas. Thus, the unilateral environmental policies are imposed on the population instead of participatory and consultative policies. Another negativity of the environmental policies is the increasing centralization. An intense central organization on the issue is witnessed together with diversion of some traditionally local tasks. The state sponsored policies are more of curative in character since Turkey began dealing with the environmental problems recently. The curative policies are in the process of giving its place to anticipatory policies in the Western countries. For this reason, the ecologically active groups are expected to struggle for anticipatory policies, which involve technical innovations and structural change. By this way, the previous mistakes of industrialized Western countries are not repeated.²⁴ It has been witnessed that the environmental problems have recently been exacerbated in the urban space in Turkey. Air pollution, which was unique to a few big cities during 1970s, has become common to many big cities. Apart from this, various problems emerge such as squatter housing, transportation and noise. Disorganized urbanization has a major role in the increasing environmental problems in the cities in Turkey. Unlike the developed industrial countries, there is a rapid urbanization process in Turkey, most of which is in the form of migration to big cities, and thus city-

based problems emerge due to the failure of the cities to overcome economic costs of this great migration. Rapid urbanization has come up with problems such as housing scarcity, squatter housing and increasing crime rates. These problems, which can be briefly summarized under the categories of economic and social, are inclined to increase.

The industrialization and development attempts of Turkey have been tied to a plan with the 1961 Constitution and the basic target of the state had been rapid restructuring in this period. Certain changes are witnessed in both public and official attitude to the environment in this period. While 1961 Constitution expresses physical and mental health of everybody, starting from the 2nd one, the development plans have mentioned the environment under a separate title. The interest in the environment has increased with the Stockholm Environment Conference in 1972. Establishment of Environmental Problems Foundation, Permanent Advisory Board of Environmental Problems within State Planning Organization and Undersecretariat of Environment indicates such process. Inclusion of a direct article referring to the environment into the 1982 Constitution by the attempts of Turkey Environmental Problems Foundation; and subsequent environmental arrangements are positive developments. Nevertheless, it has to be stated that the mentioned arrangements failed to provide an appropriate environment policy.

It has been observed that humans, in their daily life, have started to assign importance at an escalating degree, to the dimension of the environment, and as a result, from the beginning to the end of production, products not affecting adversely the environment and not consuming the bases of natural sources, have become preferable by the masses. Parallel to development, the first steps, in the information of the environmental policy in the Third Five-Year Development Plan. In 1983 the environment Law was issued followed by other laws and regulations. However, since legislation cannot be implemented in its real sense, precautions pertaining to the protection of the environment, cannot be taken effectively.²⁵ It has been witnessed that the environmental problems have recently been exacerbated in the urban space in Turkey. Air pollution, which was unique to a few big cities during 1970s, has extended to many other big cities. Apart from this, various problems emerge such as squatter housing, transportation and noise. Disorganized urbanization has a major role in the increasing environmental problems in the cities in Turkey. Unlike the developed industrial countries, there is a rapid urbanization process in Turkey (%69) most of which is in the form of migration to big cities, and thus city-based problems emerge due to the failure of the cities to overcome economic costs of this great migration.²⁶ Being aware of the importance of regional integrations and the globalization process in respect of environment Turkey is attaching great importance to carry out regional and bilateral joint activities by taking into account changing conditions in the world. Turkey is actively taking part in activities being carried out by international organizations including the UN, UN European Economic Commission, UN Environment Programme, UN Development programme, OECD, the European Council and NATO. On the other hand Turkey has hitherto signed more than 30 conventions relating to protection of environment in addition to numerous declarations and resolutions.²⁷

Air pollution is one of the most important problems our country is faced with because of both the geographical location of some cities and gradually increasing industrialization and population growth. In some cities, it has reached to fearsome levels and started to threaten human health, even human life. The negative consequences of air pollution have become a common problem for our many cities. Condensed polluted air is moved to other places with atmospheric occasions and exacerbates pollution. Various gases and particles coming out of intensive traffic technologically outmoded industrial installations within the cities, and from the chimneys of houses using unqualified fuel threaten human health. Moreover, sudden atmospheric occasions, for instance, an event of high pressure, might rocket the emission rates within a few hours and transform air pollution on the city into a crises situation.

^(a) We are grateful to a reviewer for useful comments and suggestions; we remain responsible for all errors and omissions.