Urbanisation, Land Use, Land Degradation and Environment

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Chapter 1

The Role of Communication Technologies for Access to Environmental Information and Environmental Policies: Perspective of European Union

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ABSTRACT

Whoever is responsible is and whatever the reason may be, a serious deterioration of ecosystems and the beginning of its hazardous effects against the life on the earth are turning into one of the main crisis of the humanity today. This situation menaces the whole world along with every aspects from developed to underdeveloped, the Easterner to Westerner, the Southerner to Northerner or socialists to capitalists. As the nature has increased the frequency of warning signals pertaining to the serious results of this fact which has been continuously being expressed by scientists, it has become a major national issue on which various expedients and attempts of solutions have been intensified. Today it has been understood that environmental problems with their cumulative characteristics are closely interrelated with many economic, social, cultural, political and administrative parameters. Ecological deterioration is one of the most important problems such as fast growth in population, consumption of natural resources, starvation, terrorism and regional conflicts being caused by occurrences which are more or less related to industrial and urban phenomenon which has been accelerating since the beginning of second half of the 20th Century. Moreover it is possible to claim that this is the most important problem among others threatening common future of the whole world. Consequently, environmental questions identically require global solutions in accordance with their global

characteristics. There is a common thought in scientific community and public opinion in the world that Western policies, economic development models and lifestyles depending on consumption and prosperity are primary reasons of environmental exhaustion. Though the responsibility is imputed to the West at the great extent by this way, environmental problems stand as a common matter of the whole humanity with their supra-system characteristics. Moreover, the necessity to keep the ecological changes with their dynamic attributes under control is gaining more importance and constantly getting harder yet. Consequently, these facts require some common preferences and objectives to be determined and effective policies to be generated beyond the national level.

European Union, which as a reconstruction has emerged in the context of global and regional constitutions. It is a concrete, influential and important model bearing a potential to generate policies, norms, values and standards on the subject of environment as it does in many other issues. Many technological, economic and social instruments have been put forward concerning environmental policies along with the progress and the experience of EU acquis and integration. Information and communication technologies have been one of these main instruments in carrying out environmental policies of EU. The computerized information and communication has taken on a dominant role on flexibility in manufacturing, productivity in the usage of production factors, activity in decision support and problem solving processes and advantage in access to knowledge for citizens of democratic societies. Thus environmental matters have become one of the primary titles of European information society objectives. In this context, applications relevant to use of information-technology infrastructure on solving environmental problems in member or candidate countries are gradually gaining priority in the scope of e-Europe 2002 and e-Europe+ 2003 action plans and their successor initiatives. These technologies have multi-dimensional effects from technical and operational viewpoint such as monitoring/measuring environmental happenings and empiric data exchange between scientific and expert organizations to political and social aspects of the subject such as public access to information and formation of public opinion concerning environmental agenda about environmental matters. Consequently, it is possible to propound that information and communication technologies have become the one of the main parameters of environmental issues.

INTRODUCTION

The current serious deterioration of ecosystems is becoming dangerous for the living beings no matter whatever the reason and whoever responsible is. It is gradually becoming one of the basic questions for the whole humanity. This situation is threatening the whole world in every aspect equally; the developed and developing nations, the Easterner to Westerner, the Southerner to Northerner or socialist to capitalist. Lately, as the frequency of nature's warning signals related to these serious problems is increasing it is expressed by the scientists too. In fact it has become a major international issue on which intensification of attempts to put forth different solutions is also increasing. It is now well understood that environmental problems with their cumulative characteristics are closely interrelated with many economic, social, cultural, political and administrative parameters. Ecological deterioration is one of the most important problems related to such developments as rapid population

growth, consumption of natural resources, starvation, terrorism and regional conflicts emanating from industrialization and urbanization due to their acceleration since the beginning of second half of the 20th Century. In fact, it can be regarded as the most important problem among all others threatening the common future of our world on global basis. Consequently, environmental problems demand global solutions due to their global nature. The European Union; which has emerged as one of the important structures from the global and regional developmental perspective; is a concrete, influential and important model with a potential to generate policies, norms, values and standards on mutual values, standards and politics on the subject of environment as is the case with many other issues. All through the formation and experience of EU acquis and integration, technological, economic, social and similar other instruments and solutions on the topic of environment have been put forward concerning environmental policies within the context of standards of European origin. Along with this progress the elasticity, productivity concept in the use of resources, effectiveness during the period of decision making and problem solving, and priority in the procurement of information by the citizens of the democratic communities the information and communication technology too has become one of the main and basic instruments in carrying out environmental policies in EU. In this way environmental problem has become one of the precedent topics in the aims of European information community. In this context e-Europe 2002 and e-Europe+ 2003 action plans and the interferences following these infrastructure of the information technology is gaining importance towards their use in solving the environmental problems in all the member countries of the Union and standing candidates. The technologies under question have multidimensional impacts by allowing public to reach the technical and functional information, in creating public awareness in the field of environmental agenda including their social aspects through tracking and measuring of environmental developments as well as environmental data transfer among the scientific and expert foundations. As such, it is possible to say that information and communication technologies have taken a position among the main parameters of environmental problems.

1. ENVIRONMENTAL PROBLEMS AND ENVIRONMENTAL POLITICS BEYOND THE NATIONAL LEVEL

Humans are face to face with an important problem originating from the destruction of our environs and generally termed as environmental problems. From the very start due to close interactions with the environs humans have been trying to dominate and change these in accordance with their needs and wishes. But, while doing so they have created a chain of very complex environmental problems resulting in a destruction of the surroundings by upsetting the ecological balance due to its overuse and by applying pressures beyond the limits of nature. The events like increase in the population, fast and unbalanced urbanisation, and industrialisation and over consumption together with the economical aspects are leading towards an expansion of the environmental problems. The negative impacts originating in this connection due to an advantageous position in the production quantity by the pollution creating monopoles has lead environmental problems towards a focus of discussion at local,

regional and international level. Today the environmental topics are bringing different countries on a very complex reciprocal dependence. The danger of extinction in the environment is compelling nations to come to a mutual understanding on global basis. The concept of trans-boundary pollution too is making environment as an international issue rather than national, thus pressing for regional and universal cooperation[1]. In general the first global environmental political decisions were taken by UNEP (United Nations Environmental Programme) established by the United Nations soon after its creation in 1972 after the meeting in Stockholm. The report on "Common Future"; published in 1987 by the United Nations Environment and Development Commission (Brundtland Commission); brought the model of Sustainable Development to the forefront and 20 years later, in 1992 Rio Conference the present situation of the world was scrutinized. The most important point of common understanding among 179 nations was; how economy, society and environment can be integrated in to the sustainable future development of our world. The topics dealt with in the Rio Conference declaration were arranged under global environmental politics and principals that will lead in the politics of environment-development were assembled under Agenda 21. According to this, the agenda feels that sustainable development is actually under the responsibility of respective governments which needs national strategy, plan and politics. The national efforts should be in collaboration with international bodies like UN. An active position of non-governmental associations and other groups together with a wide public participation should be encouraged. The aim of Agenda 21 necessitates that developing nations will get substantial new financial aid. These nations need this support as a compensation for dealing with the global environmental problems and speed up sustainable development programme. There is a need for a support from international bodies as well in order to fulfill these aims[2]. The sustainable development theme from the Rio Conference and Agenda 21 in Rio declaration stresses a need for a local, regional and global consensus on the prevention of environmental problems and politics related to this[3]. The headings of global environmental politics and framework of the international environmental politics accepted within this context are enough to play a functional role in outlining the national environmental politics as well. The concrete efforts related to this above the national level are outlined in the World Summit held in 2000 in Johannesburg on Sustainable Development, which was very important as different actors dealt with economy and environmental problems in a balanced way, and because this summit was the latest joint standing of humans against environmental problems[4].

Since industrialisation is above the level of nations, it has given the environmental problems a status beyond the national level. As such, environmental politics is gradually gaining weight in the international and national environmental politics due to its regulatory principals. The national politics has great importance due to its responsibilities and authority, because international problems of ecology and economy are first faced by the nation. This government at the same time is often helpless against world economy and its problems. National government although accepted as a single great actor against global environmental problems actually is in a week position[5]. In this context, Bell's "for big problems very small, for small problems

very big" well known assumption confirms that effectiveness of national government gets reduced in the face of problems and politics upcoming in parallelism with globalisation of environment. In other words bindings of national government politics run against each other *de facto* to globalisation of environmental problems[6]. In this sense, from national governments it moves towards web communities[7]. Today, on one side globalisation is occurring, but at the same time settlement attitudes are strengthening. In this two ways developmental process, globalisation attitudes are changing the traditional structure of national governments, as against this settlement period reproduces and rejoins the historical, cultural and physical identities, due to its one-sided centralistic structure within the globalisation itself, in order to support a world more humanitarian and worth living. The changes in the economic and political functioning of the national governments, due to globalisation, regionalisation and settlement attitudes coming to the fore front and experienced by the communities during post industrialisation, in particular lead towards depressions because of suppressions and integralism, and this has been overcome in the West through developments in democracy. But this is not certainly the solution and in the coming decades, localisation and regionalisation attitudes will increase. Environment is getting major share from the problems created by these attitudes due to its national and international characteristics. Parallel to the new aspects of the environment, efforts to develop global solution has attained new dimensions within these changes. In this period, in addition to the global and local aspects the problems are considered from the economic, political and cultural point of view directly related to the regionalisation.

International organisations are considered under two headings. These are cooperative activities and integrations like European Community. Former are respecting the sovereignty of member countries because decisions not acceptable to them cannot be taken, as the decisions are taken on full vote basis. As against this, EU uses some transferred sovereignty rights, member countries have given up some powers in favour of member states. This double sided development is seen in the functioning and cooperation on environmental matters. [8]

In this connection during the approaches towards the international environmental politics, international rules and regulations due to pressures of rising organisations from sovereign nations and local-national actors affiliated to the international structures as spreading organisations become apparent. [9] The present day topic of curiosity and discussion is up to what extent the force of globalisation or global environmental organisations will be effective. More important is, in this age of globalisation how much effective national environmental politics will be? [10] The strong discussions taking place while outlining the politics during the transfer period of European Economic Community to European Union are observed on the topic of environment too between the Union and member nations.

2. ENVIRONMENTAL POLITICS, ENVIRONMENTAL INFORMATION AND COMMUNICATION TECHNOLOGIES

All efforts to protect and solve the environmental problems are a part of environmental politics. However, measures taken by the governments for the future

development and protection of natural and created environments can be termed as environmental politics. Environmental politics in the sense of searching for solutions of concrete negative exposures beyond the observational trends, reactions and ideological speeches, takes different shapes in each country according to its characteristics but at almost all places understanding on some characteristics of environmental politics are met with. A creation of healthy environments for humans, protection and development of community environmental values, and sharing of the necessary load of environmental politics applications mean an adaptation to the principals of public justice. [11]

Generally different solutions are preferred in the case of environmental politics in different countries on our earth. A similar discrimination is observed among the environmental specialists, scientists, writers, philosophers and political organisations working for the protection of environment. The economic system in a country could be capitalistic, socialistic or capitalistic dominated mixed system, these effect environmental politics as well like all other political decisions, depending upon the situation in the political regime of a country, whether run by a multi-parliamentarian democratic system or single part rule. [12] However, beyond all these differences, in this connection politics generated in general can be dealt with under two headings namely; protective and repairing. Although it is not possible to isolate environmental problems from political ideology, one of the important themes emerging from this politics is environmental management which is directed by the economical and technological feasibilities beyond this ideology. Not only public but also in private sector a suitable communication, planning and control is needed and for this purpose a working group for this system should be created, wherein environmental management will form a basis for environmental politics, so that all living beings live in a healthy and balanced environment, as well as for a protection of natural resources, their evaluation and development. This period embodies like execution, planning and supervision of all functions related to the environmental planning and development within the framework of central and local governing bodies. [13] One of the most important instruments in the environmental politics is environmental information embodying efforts related either directly to the constitution or related laws or other texts in jurisprudence, from government programmes to developmental planning arrangements within a wide perspective. The most important side of the environmental information during the protective political measures applied before the environmental problems appear and those developed after the environmental problems come into being is information technology. Information and transportation technology is an important instrument of environmental information in the unsolved environmental problems in addition to being an important parameter in the changes involving transformation from industrial society to the one beyond industrial level (scientific society). The environmental information produced after an effective application of this instrument can play an important role in the environmental politics at local, regional and global levels against environmental problems. The present day situation dictating international politics is environmental information and within this context the scientific technology is gaining more weight in particular due to the boundary less nature and cumulative characteristics of environmental problems.

This topic is of the same importance in the environmental politics in Turkey as well as in Europe which is accepted as a popular example in the regional organisational matters in this context. The topic is carrying great weight due to interesting developments in environmental problems, in particular due to latest developments between EU and Turkey.

3. ENVIRONMENTAL INFORMATION AND ENVIRONMENTAL POLITICS IN THE EUROPEAN UNION

3.1 Environmental Politics of European Union from the Past to Present: Qualities and Problems

The developments of environmental politics during the formation of European Union have followed a long path after passing through a complex framework of consultations, scientific approaches in socio-economic aspects, legal instruments and technical facilities. [14] The joint ventures in environmental field and collective politics have become necessary for obtaining a free competition and free movement, accepted as one of the basic requirements in the unity of Europe. An application of different politics in the member countries, in particular determination of different environmental measurements, results in a difference in the costs of products. Similarly, quality standards in some member countries restrict the entrance of some products produced by other member nations. In addition, in some member countries investments needed in order to protect the air and water pollution increases the costs of products to a great extent. Due to this and similar other reasons the question of free competition and free movement of products among the member nations come into being. In order to overcome this situation need for a joint environmental politics has been stressed. For a betterment of the living standard attained by the member countries, development and continuation of natural living conditions in a healthy manner is the other development necessitating the need for a common environmental politics. It would not be understandable to remain as a stranger towards the most important factor like protection of environment and natural resources for a continuation and upgrading of the quality towards a healthier living of humans by the European Union which is a project created for a better quality and comfortable living of public on the whole in the member states. Other reason for EU to produce environmental politics related to its own spheres is the political one. The differences in the environmental politics due to differing living conditions and under different political systems are regarded as a position not acceptable by the countries affiliated to each other within the same economic circle. [15]

In the agreements of the EU foundation the topic of environment is not mentioned openly up to 1987. The situation was dealt with the help of operation planning and through guiding of national laws, till one Europe document was signed in 1986. The reason toping the list in the development of oneness politics through practical application of Rome Agreement; regarded as EU constitution; is quite apparent from how deep the legal limitations in the union by law are. The most important point here is instead of limiting the wishes of masses via economic agents; whose responsibility lies on its shoulders; its expansion to the public factor. As will be clear from the later

realities the subject was approached absolutely economically, but the masses addressed included citizens on the whole within this Union. Due to a harmony in the economies of the member states and realization of balanced developmental target environmental pollution was defined as a limitation and the subject of environment was included as three subheadings under a single subject in 1986 in the highest document of EU laws. [16] According to the reason given in the joint environmental politics of the union in Rome Agreement and One Europe Instrument, for a harmonious development joint studies are required for continuous and balanced development as well as economic activities in the member states.

According to the statement on mutual environmental politics in Rome Agreement and One Europe Accord, joint actions are needed for a balanced and continuous development, as well as for harmonious economic activities in the members of the Union. One Europe Accord put into force in 1987 brought about basic change in the European Community founding agreement, which basically aimed to remove the physical, technical and financial obstacles up to 1993, lying in front of the common market for the realisation of a single market. One Accord on one side brought changes in the departmental structure of the European Community; on the other hand it widened the power of members within this framework. One of the areas covered by One Accord openly included the powers of community members regarding the protection of environment and environmental politics. The article 25 of European One Accord implies to include number VII Environmental Heading in the Rome Agreement. In this way, environmental problems are included in the founding agreements for the first time since the foundation of European Community. The heading added to the founding agreement includes articles 130 R, 130 S and 130 T. Here 130 R is the basic article, defined with an aim to protect and improve the quality of environment for the sake of protection of human health and rational use of natural resources. [17]

In order to stress the urgency of this topic, in addition to the changes in this article revising the Rome Agreement, European Community publicised 21 March, 1987–20 March, 1988 as European Environmental Year. Parallel to this, the 4th Operational Programme covering the years 1987-1992 was ratified and put in to force. The form and contents of the programme under question, although embodying most of the characteristics of earlier programmes, also considers new problems and rules. Here, comparatively strong protective measures have been considered and determined, both as a result of industrialisation as well as social living. In addition, community legislations applied theoretically aimed to get these activated practically as well. It was accepted that application of an effective environmental politics and environmental education of individuals will provide practical operation of the legislation. [18] In spite of both European One Accord as well as important contents of the Operational Programmes an increase in the criticism in the inadequacy of the European community environmental politics and occupation of environmental problems on the whole world agenda due to their cumulative characteristics, community was forced to make more realistic and concrete efforts. The determining date on this point is 7 February, 1992 when Maastricht Agreement transforming European Community into European Union was signed. This date, in addition to

being a concrete step towards a political union of the European Communities, is important also for a realisation of politics of several important topics including the environment. [19]

Environmental politics of European Union has been initiated within the scope of some targets and principals both before and after Maastricht Agreement. In particular after the agreement under question, the V. Environmental Action Plan which came into force in 1993 and legal arrangements made thereafter these targets and principals have been defined more openly. The basic targets in the legal documents on the environmental politics of the Union can be summarised as follows; protection of the environment, environmental look after, upgrading of environmental quality standards, to be cautious about the damages on ecological balance arising from the use of nature-natural resources, provide means for their intelligent management, protection of human health, follow development in a balanced way with the quality requirements, in particular pave way for development of working conditions and living environs, arrange for more consideration of the environmental impacts in the use of soils and urban planning, and search for joint solutions on global environmental problems together with the countries outside the Union particularly international organisations. Some principals given in the basic documents of the environmental politics provide important steps in the application and formulation of an integral politics in the Union.

The basic applications directed by the environmental politics of the European Union are becoming more varietal and effective. Protection of air tops these applications. Protection of air quality is made possible by prevention of contact between solid pollutants with air, preventive measures adopted in energy, transportation, tourism and planning of land. For this purpose environmental politics applied both at the level of Union as well as national and local levels requires important changes. The problems of ozone layer depletion, control of acidification and ground level ozone and other pollutants, climatic changes and global warming are the major areas considered for the protection of the air in the Union. Each problem is affected from different public and industrial sectors and need solutions peculiar to every one. The Union is operating in the case of ozone depletion with the permission and support of UNEP within the framework of the programme accepted by more than 120 countries. The target for gradual stop over of the production of chlorofluorocarbons and halogens damaging ozone layer has been reached in 1996. Union is also working on the formulation of politics on low cost emission limits and fuel quality standards in the industries related to the petrol and motor vehicles production by pushing them to decrease the consumption of fuel and improve air quality in spite of an increase in the traffic level. [20]

Climate change sector too is dealt with among the joint political topics. In Europe important temperature increases have been observed during the last 30 years and developments related to a decrease in the seasonal changes recorded. [21] The Union is taking front line in the struggle for climate change. From 19th Century onwards world ground temperature has increased by a mean value of 0.3-0.6 °C. The research investigations too prove that negative impacts due to human activities like use of fossil fuel and destruction of trees cause emission of carbon dioxide and other gases

resulting in greenhouse effect. Union has outlined the framework of the strategy for struggle against climate change in the beginning of 1990 and supplemented the UN framework agreement on Climate Change accepted in 1992 during Rio Summit. European Union is encouraging the production of electricity from renewable energy and improvement in fuel economy, in addition to several initiatives related to climate. The Kyoto protocol regarding the climate change accepted by the member States of UN in 1997 too has been signed by the Union. [22] Kyoto protocol has determined a target of reducing the greenhouse gases 5 per cent below the 1990 level until 2008-2012 from the industrialised nations. A study undertaken recently confirms earlier investigations that for a balance in climate change on long term basis there is a need for greater reduction of global emissions. Some member states of European Union have outlined the targets for reducing the emissions to a great extent. [23] In addition, it is a fact that as compared to the period before 1998 there has been an important development in the reduction of emissions in European Union. In this connection, the importance of Kyoto Protocol cannot be neglected in its effectiveness in the politics related to the climate change. [24]

The steps taken after Maastricht Summit and in particular after 5th Environmental Action Programme need a special mention in the concretisation, diffusion and effectiveness of all these principals and applications towards the environmental protection. Moreover, European Environmental Agency; providing an institutional structure in the politics; has contributed a lot in the functioning of this activity. Maastricht agreement put into force in 1993 is accepted as a turning point in the unity of Europe. It allowed changes in the institutional structures on one side, but on the other hand it provided measures for a provision of economic and monetary union. It also provided a calendar for application of precautionary measures in the political union towards a unity in defence, security, law and internal affairs. Moreover, together with addition of new politics within the unity context some existing political fields were strengthened. Environmental politics too has been strengthened by the Maastricht Agreement and for the first time principle of environmental protection has been included in the targets of European Community (Union) within this framework. It has been stressed that economic development should take place in a balanced way with the environment; as such Union has been asked to develop environmental politics. [25]

The criticism towards the insufficiency of environmental politics in the European communities due to an increased awareness towards the environmental problems has stressed a need for taking more effective steps on the topic of environment without affecting the sustainable development of member states. [26] The first stages of changes in the founding agreement in order to make preparations for a wave of new and greater expansion of European unity in 21st Century, has been agreed upon during the Amsterdam Summit on 16-17 June, 1997. In this connection, in addition to modest expansion in the political aspects left within the authority of European Union, some smaller changes in the institutional structures have also been realised. Moreover, a consolidation in the agreement has been done by summing up and itemising the changes made at different times in the founding agreement. In the new changes brought in the field of environmental politics within European unity with the

functioning of Amsterdam agreement which become effective in 1999, sustainable development principal was added to the 7th paragraph in the preface of European Union agreement and in order to arrange an application of the same principal some changes were made in the articles related to the environment in the European Community Agreement. [27] In this connection; in addition to the article 2 in the rearranged community agreement depicting protection of environment at the highest level and improvement of its quality, article 6 embodying rule of integration of community activities and politics too has been revised in a balanced way with article 3 related to the formation of politics in the environmental field. Looking at the contents we can say that no important changes have occurred in the structural aspects as a result of Maastricht Agreement.

An important development which needs a mention regarding the environmental politics of the community is the summit of Heads of the States of European Union held during 7-8 December, 2000. It can be regarded as one of the turning points in the European Union. The intergovernmental conference continuing after signing of the Amsterdam agreement in 1997, this Summit has concluded with Nice agreement. The agreement under question contains changes in the institutional structure of Europe, in particular effective after expansion and aiming at effective functioning. In the current institutional structure and in particular interruptions faced by the European Union even during the decisions, in the case of expansion from 15 to 28 members, the dangers in its non-functioning on the whole has lead to such an introduction before the completion of expansion of member states. Nice Agreement (2000) has not brought any important changes in the European Community Agreement regarding the rules in the environmental politics. [28]

One of the topics in the environmental politics of the Union is the annual Management Plan prepared by the European Commission. As one of the 36 General Directorates within the Commission, the Administrative Plan prepared in 2005 by the Directorate General of Environment gives important notes on the latest situation regarding the environmental politics of the Union. The "sustainability of the sustainable development" has been fully stressed in the protection of environment for the present and future generations in addition to its sustainability and development. The topics like climatic change, protection of nature's diversity, sustainable production and consumption are highlighted specially within the 6th Environmental Action programme for the long term strategies regarding the environment and attention has been drawn towards internal (EU members) and external (Global) actors. Moreover during this period, activities and environmental planning of international actors, environmental civil defence and information exchange on this topic too has been stressed. For a better planning and application of the environmental politics, attention has been drawn towards a creation of all sorts of scientific information webs and their effective exchange on economic, social and technical aspects in order to fill in the gaps in the knowledge [29]. "European Union Environmental Politics-2004" draft prepared by the Commission and discussed in the Council and Parliament, is an important document [30] enlightening us on the latest situation in the environmental politics of EU. This draft has been published on 27th January, 2005 and embodies information on the 2004 developments and important

events on environmental politics together with environmental projections for 2005. The projections mention about the contradictions expected to rise from the new 10 members of the Union in particular Romania, Bulgaria due to a fast economic development. 2004 has been a highly productive year for environmental protection in Europe and the World and it has been stressed that this action has been supplemented by the Sixth Environmental Action Programme implemented by the Union. The climatic change, conservation of biodiversity and similar other topics brought to the forefront by this programme have been subjects of priority in 2005 as well. [31]

The common level of environmental standards and their applications in the member nations in the EU has a 30 years solid experience of application, most of the time depending on the most advanced level reached by a nation during the acceptance of bylaws. EU laws have lead the world on such topics as testing of the dangerous chemicals and their labelling, control of biotechnological investigations and products, and control of major industrial accidents. During 2000- 2010 basic aims of the EU environmental politics can be summarised as; improvement of an application of the bylaws, arrange for their adaptation by the members, arrange for a punishment from the Council of Justice for those who do not adapt these, integration of environmental politics with other political aspects, change consumption attitudes, arrange public participation in the solution of problems. [32] In addition, the developments including the topics regarding the active participation of citizens within the concept of "good environmental management" too can be regarded as important in the environmental politics. The "good environmental management" in the White Paper of 2001 European Constitution includes five main principles like freedom, participation, responsibility, effectiveness and consistency, for a formation of the justified political environment related to the environment in Europe. This principle and understanding has been ratified in the fifth Action plan as well which brings to the frontline the rights of citizens based on basic environmental standards and in the meantime gives important responsibility to the non-governmental organizations. [33] The NGO's dealing with environment are gaining weight particularly in creating public awareness through environmental education in Western Europe, by reinforcing administrative duration and hold an important position in the structural and functional development of civilians. [34] The importance of NGO's in the EU environmental politics cannot be neglected particularly due to their efforts related to public participation.

3.2 Position of Environmental Information in the Environmental Politics of European Union and European Environmental Agency

One of the most important components both during the formation as well as enforcement of the EU environmental politics under question has been Environmental Information. A fast development in the information technology for procuring data and analysis techniques has proved of great help to ecology and environmental science. [35] Knowledge and information technologies are capable of producing potential positive or negative effects on every step of sustainability. [36] Because, a need for functioning of the environmental politics parallel to the globalisation of environmental problems is to a great extent dependent on the establishment and

management of a good information infrastructure. In this sense, success of the application of environmental politics by the Union is closely related to the effective use of scientific technology and diffusion of information webs that will be created within this framework. One of the foundations occupying the frontline in the case of sustainable development in the Union, particularly during the period following Maastricht, is "European Environment Agency". In order to provide healthy and comparable information to the Union and the member states on the position of environment, the EEA;established in 1990 and put into force in 1993; has undertaken the function of providing centrally oriented sustainable development strategy during the periods of developing politics towards environmental protection. [37] The aim of the agency was to help EU and member states in the improvement of environment, integration of problems related to the environment into economical politics and decision making on the progress towards sustainable development. [38] Among the working fields of agency are procurement and analysis of environmental information, coordination of EIONET and an information system, provide services to the European Commission, member countries of EEA, international organisations, conventions and agreements, provide suggestions related to the politics, and other topics related to this on a broader scale. The strategy of EEA for 2004–2008 is the third perennial working programme prepared according to the outline mentioned in the establishment format of the Agency. It has been accepted in the meeting held on 25 November, 2003 by the EEA governing body and is on the same lines as sixth Action Programme. The activities of the Agency cover 4 basic themes: follow climate change, protect biodiversity loss, follow habitat changes, protection of human health and living standard, use and management of natural resources. During the coming 5 years EEA will produce a series of evaluations on these topics and sectoral interactions in the environment. Some basic limited indicators will be used for reporting the effects of sectoral environmental activities and their impact on the ecosystems. [39]

Member countries and EU will have the, transfer of knowledge and information within EEA through EIONET. One of the most difficult issues waiting for the standing member states is the enforcement and following of EU laws on environment. The difference between EU and the standing member states at the level of environmental protection and restrictedness of the old responsibilities regarding the environment will require long term strategies with known aims. On the other hand, member candidates possessing wide untouched virgin areas will make a great contribution to the biodiversity of Europe. A protection of these resources and at the same time develop and administer an economically and environmentally sustainable framework, member states will require an effective cooperation with EU on some topics. Presently, EU and the standing member states are signing and approving agreements related to the EEA and EIONET (European Environment Information and Observatory Network). The membership in EEA will prove beneficial for both EU and standing members. In this way, standing member states will have direct access to the Agency's information web and provide effective participation covering comparative analysis. [40] There is a need for more discussions on the importance of activities of EIONET in the functioning of environmental politics, which is one of the basic activities of the EEA. EIONET aims at providing knowledge and expertise through dependable and

good quality data in time regarding the pressures and position of environment Europe. This situation, allows politicians to make decisions for proper protecti measures of environment at national and European level and observe the effectivene of the politics and protective measures followed. EIONET is a joint web of the memb and standing members of EEA. It itself embodies many centres related to Europe, ov 300 national environmental agencies from 37 countries, and a circle of more than 9C experts from other foundations dealing with environment information. These ar national focal points and national reference centres. The partnership of EIONET i important for the supports of EEA, in order to collect, arrange, develop and distribut this information.

Infrastructure of the information technology (sometimes called e-EIONET supports web regulations and individuals. EIONET included 15 EU member countrie out of 18 EEA member states in 1994. In 1996, 10 standing member countries from Central and East Europe too started contributing in the activities of EEA and developed their national networks. Others too joined EEA together with Cyprus, Malta and Turkey in January, 2002. In 2003 all became members of EEA and joined EIONET, raising the number of countries to 31. EEA is the first organisation which opened the doors to all expanding and standing members of EU. At present Switzerland, Albania, Bosnia Herzegovina, Croatia, Macedonia and Serbia Montenegro are participating in advance in e-EIONET and EEA programmes till they become member states. With the help of e-EIONET EEA is compiling on time nationally approved environmental data obtained from each country to provide high quality information. This serves as the basis for the information on integrated environmental assessment publicised and opened for communication by EEA through its website. This information allows formation and evaluation of environmental politics at the European, global and national levels and serves to support the public participation.

European Topic Centre (ETC) is the union of companies with expertise in special environmental fields formed by the organisations of the EEA member states under the agreement signed by EEA for supporting working plan. ETC's are expert centres in the field under the agreement signed by EEA in order to fulfil certain duties mentioned in the annual management plans and in the EEA strategy(5 year working plan), and appointed by the governing body of EEA as an extension of EEA on certain topics after competitive selection period and activity. Each ETC is composed of a leading organisation from environmental research and scientific group, with expert partnership organisations, which bring together sources on their special expertise fields. ETC work together with the members and participating countries, making easy the transfer of information coming from member countries and submission of reports as well as other services to the EIONET. At present there are five ETC's; air and climate changes, water, terrestrial environs, flow of waste and materials, nature protection and biodiversity.

National Focal Point (NFP) is a group of experts found in the national environmental organisations approved by EEA as the main contact point financially supported and appointed by the countries. In order to support the applications of EEA working programme, NFP coordinates national web composed of an infinite number of national reference centres (NRC). NFP's are the main contact points for

EEA in the member countries responsible for the cooperation with EEA and ETC's as well as arranging national coordination related to the EEA strategy. The working procedures differ between the countries. This reflects the different natural structures of national environmental systems. For example, some NFP's are affiliated to the environmental agencies, others are a part of the Ministry of Environment, a few in the national central administrations, some not administered centrally or working within the federal administrative systems. NFP's protect and develop the national web, coordinate contacts, requirements and deliveries at national and EU levels. Moreover, it serves as an advisor to the members of EEA governing body, arranges contacts with other related webs like Eurostat. Many NFP's organise the publication of news bulletins for publicising the important EEA publications.

National Reference Centres (NRC) are experts or group of experts in the national environmental organisations appointed and financed by the national governments in order to work with the EEA and other European centres in definite environmental topics related to the EEA working programme. NRC's are determined by the member states. These centres are experts are groups of experts appointed by using national sources, with suitable information on different environmental topics and present in the organisations compiling or providing environmental data at the national level, with suitable knowledge on different environmental topics and their tracking or modelling. NRC's have been established in the air pollution, climate change, quality of streams, water pollution, waste production, biodiversity, energy and many other environmental fields, playing a role in the technical cooperation of these fields and working together with EEA and related ETC's.

EEA has determined the flow of some annual data's in accordance with the information coming from EIONET partners. At present the data collected on air quality, air emission, terrestrial waters, marine and inland waters, polluted soils, protection of nature and land cover is used to update core environmental indicator sets which serve as the basis of EEA reports and evaluations. While presenting this data an annual progress report on the country performance is prepared by the EEA. This work is a useful tool for determining the country performance and development of responsibility in all countries. The data and information provided by the countries is used as much as possible for EIONET as well, within EU and international obligations. This means that the data collected once at the national level can be used for many purposes at national and international as well as EU levels. An accommodative European approach is needed for solving the environmental problems. EIONET has played a foremost role in the procurement of this unity covering a major part of Europe with an experience of 10 years development and sustainability. This web brings together the best national experts on environmental topics and politics makers at national, international and European levels. The countries while developing their national efficiencies have made use of sharing the suggestions, expertise and experience in the production and publication of information, particularly in the field of administration and data compilation that properly fits into their politics. The ETC's established embody basic environmental topics and by inclusion in the EIONET strengthen the contacts between the countries and EEA. A dense exchange between NRC and ETC's has developed the data quality at the national and European levels

and has helped many countries in strengthening the capacity of present observation systems. An early EEA and EIONET membership has helped in upgrading the profile of environmental topics and affected the characteristics and contents of national observation systems in the new EU member states. The responsibility to report the country data at the European level has the aim to provide table of the position of environment in Europe and pressures on it which is openly compiled and solved by the EEA and ETC's. In this way, a determination of environmental performance of the countries also becomes possible. In addition, member states of EEA are pushed to develop national webs which guaranties cooperation with a need for EU and international reporting.

The requirements for environmental information are passing through an evolution. At the start EEA thought as an organisation providing environmental data and information, now it not only discusses about the position of environment with European Parliament, European Commission and member countries, EEA and EIONET at the same time with a direct help from European Union 6th Environmental Action Programme are working on 4 major topics. These topics involve solving the problems related to climate change, loss of biodiversity and understanding changes in the situation of environment, protection of human health and living standards, management and sustainable use of natural resources and wastes. Each one of these is affected by the sectoral activities like agriculture, chemicals, energy, communication and land use planning which need a consideration. Environmental topics and information particularly in the integration of communication with sectoral politics has shown a development, and studies on the energy-agriculture are continuing. They are fully cooperating on the submission of reports regarding the future of environment and effectiveness of basic environmental and sectoral politics. During the next five years EEA and EIONET will expand their activities for supporting a series of political aspects.

EIONET has made important contributions in the following fields and will continue its efforts in this direction.

- ☆ A true and timely evaluation of the measurement of greenhouse gases together with their progress within the target of Kyoto Protocol and a comparative demonstration of these between Europe and other areas in the world.
- ☆ Application of Nature 2000, development of performance indicators for biodiversity politics in connection with the sectoral politics.
- ☆ Support the structural needs at the European and global level on marine environment and soils together with the strategies related to these topics.
- ☆ Evaluation of the impact of air pollution on the public.
- ☆ Evaluation of environmental and economic effects of natural and technological dangers.
- ☆ Develop more the Eurowaternet -a European Water Tracking web- for supporting applications of water information system in Europe and

preparing reports for water environment and other directives. EIONET has developed a lot during the first 10 years. It is now ready for adaptation to the changing topics and priorities. EEA member countries are working more openly and collectively on the environmental information in Europe through EIONET. EIONET is a successful story supporting the evaluation and developments in environmental politics, through partnership and information sharing, which can be exported to other parts of the world and will help in establishing connections between these parts. [41]

An important step taken by the Union within the environmental politics is the preparation of a New Environmental Action Programme after the Nice agreement (2000). EU Commission has announced its 6th Environmental Action Programme on 24 January, 2001, which gives basic and priority targets in the field of environment for the coming 10 years (2002- 2012) in Europe. In the programme called *"Environment 2000: Our Future, Our Choice"* 4 major topics have been selected as priority targets. These are; climate change, nature and biodiversity, environment and health, and natural resources and wastes. [42] Sixth Action Programme can be accepted as a framework study on the future 10 years activities of the EU with an aim to integrate environmental care in public politics for a successful sustainable development. EEA has made important contributions in the concretisation of this programme at the public level in particular from the point of sustainable development. [43] The Sixth Programme upon which the Council and the Parliament have reached to an agreement has been activated at the end of 2000; it embodies general strategies for the coming 10 years. Although a short strategic document, it provides an opportunity for preparation and application of detailed political targets and measurements. [44] At this stage Sixth Programme, stresses that the decisions to be taken on the environmental problems will be within the framework of mechanism of management not direct management, and is a binding for the organisations of the Union and the member countries. Moreover, this Programme will be a binding for the standing member countries while becoming full members due to the inclinations for expansion of the Union. It appears that decisions have been made within Sixth Action Programme towards increasing awareness on sustainable development through multifaceted discussions with standing member governments and cooperation with business sectors as well as non-governmental organisations working in the field of environment in the standing member countries.[45] The Action Programme too stresses propagation of understanding for more sustainable production and consumption on the way towards effective use of resources and stresses the need for eco-activities in Europe and the world, the most important aspect in this connection will be the steps taken towards environmental technology. [46]

The most important work related to the EU environmental politics is the acceleration gained lately regarding the attempts made to create e-Europe. The environmental politics of the Union is thus affected directly or indirectly during this period. An information web based on the effective use of information technology will increase the structural and functional effectiveness related to the environmental politics of the Union like other political fields. One of the important results from the EU meeting held in Lisbon in March, 2000 was development of e-Europe in order to

adapt people and countries in EU on information age. The three basic aims of this development were: firstly to bring a digital age for all humans, homes, schools, business centres and government offices in the Union; secondly create a digital aged Europe with the support of innovative mind ready to finance and develop new ideas, and finally make arrangements in such a way that throughout this period the social aspects are not left out and confidence is developed among the humans on these concepts. In order to fulfil this aim, heads of the governments and states entrusted European Council and Commission to prepare a detailed action plan through highest level coordination coinciding with "e-Europe Introduction and Lisbon Strategy" keeping in view the national affords. Commission finished the e-Europe 2002 Action Plan draft, the first stage of e-Europe on 24 May, 2000. The draft with 64 targets was discussed by the member countries during the Commission meeting held at Feira on 19 and 20 June, 2002 and e-Europe 2002 Action Plan expected to be finished till 2002 was accepted. [47]

e-Europe plan prepared with the aim of arranging the passage of countries in EU towards an informative society and a e-Europe+ plan was also prepared for including standing member countries in 2001. This group including Turkey as well has prepared an action plan with an undertaking that at the end of 2003 they will finish the work grouped under 4 major articles. These major groups and their main headings are as follows: fasten the work on establishment of basic structural foundations of the informative society (provision of information services for acceptable cost to everybody, application and adaptation to the acquirements on informative society); make arrangements for providing cheaper, faster, safer internet communications (cheaper and faster internet communication, faster internet for students and researchers, safer webs and intelligent cards); investments on human resources (prepare European youth for the age of numbers, labour force in the information based economy, participation of everybody in information based economy); refreshing the use of internet (fasten e-trade, e-government-electronic communication in the public services, intern health, European numbered contents in global webs, intelligent communication systems, intern environment). The standing member countries will prepare three reports, 2 mid term and one final regarding the developments related to this work, and shall inform EU about the work done till that time. The mid term reports will be submitted in February/March 2002 and at the end of 2002, final progress report will be submitted at the end of 2003. [48] The standing member countries with the knowledge of major differences in economy, social and industrial conditions between them and the member countries have come to an agreement for a common date as 2003, in order to reach the goals set by e-Europe+ interference. In addition, in order to compare the data between e-Europe and e-Europe+ for a follow up and evaluation purposes, indicators set and accepted by 15 e-Europe countries have been selected. However, e-Europe has come into force at a time when in almost all countries in EU all houses had telephone communication. The situation in the standing member countries is not the same. Therefore, for these 3 elements in e-Europe + Action Plan a paragraph under the title "the activities related to the formation of basic structural foundations should be fastened in informative society" has been added. Additional indicators have been used for reporting and follow up of this part.

European Commission has invited South Cyprus Greek Administration, Malta and Turkey in February 2001 to join other standing member countries in the preparation of this joint action plan. Turkey has participated in this activity the same year. The most important project run by EU in the economic field has been e-Europe interaction. With a start given by the standing member countries too as e-Europe+ interaction, Turkey fastened the activities by carrying out studies on the way towards an informative society. The final progress report on the application of e-Europe+ Action Plan published by the countries on the way to join the Union and standing member countries was accepted with contentment in the European Ministers Conference on Informative Society held in Budapest during 26-27 February,2004, and the affords spent and results obtained were appreciated. It has been fully stressed that in order to reach the common goals defined in e-Europe+, the joint steps taken within e-Europe 2005 Action Plan will form a solid basis for progress made in the application of national action plans in the expanding EU members and related standing member countries. With the completion of e-Europe+, Turkey, Bulgaria and Romania have joined the e-Europe 2005 with an observer status, in addition to the 10 full members in May, 2004. [49] As a result of these developments, the meeting held by the European Council in March 2002 in Barcelona has entrusted the Commission to prepare a new action plan focussing on " widespread use and communication of broadband upto 2005 within the Union, development of Internet Protocol IPv6, net and web security, e-Government, e-Education, e-Health and e-Business." e-Europe 2005 Action Plan expected to be completed in 2005, was accepted during the meeting of European Council in Seville in June 2002. The aim within the framework of these goals is to develop on one side public services and application, services and contents embodying e-Business as well in the demanding part and on the other side develops a safe wideband communication infrastructure for a presentation of this work in the application part. Lisbon strategy not only contains productivity and development but also social adaptation and employment. e-Europe 2005 favours a human resources approach in this connection, with an aim to develop participation (e-inclusion) and provision of equal opportunity. Due to this provision of services through different channels is evaluated as an important tool in the success of this application. Moreover, the aim in e-Europe 2002 is to increase internet connections, but in e-Europe 2005 the goal is to change this infrastructure into economic activities. [50] A study increase in all these activities related to e-Europe is accepted as a start [51] of materialization of Information Society for European citizens.

This work and the politics put forth in the infrastructure, communication and public services by EU affecting the environmental politics as well sometimes directly, sometimes indirectly. The developments at the Society level related to the e-government and development of information technology in particular affect and direct the politics regarding environment at the very first level. During these developments affecting not only the member countries but also the standing members and other countries, Turkey which has started the integration discussions with the Union too is getting affected in many ways and is following many developments on different topics including environment.

CONCLUSIONS

There is a widespread feeling in both academic circles and public in the world that political aspects and living attitudes in the economic development, production and comfort in the West are the main reasons for the environmental degradation. Although such an important responsibility is attributed to the West, today the environmental problems due to their characteristics above the systems are standing in front of us as a common problem of the whole humanity. The necessity to keep under control the ecological changes due to their dynamic characteristics through preventive measures with new approaches is increasing and at the same time gradually becoming difficult. As such, a series of common preferences and goals should be determined above the national level and formation of effective politics is becoming must to solve environmental problems. Out of the efforts put forth for solving problems in this connection, both the due to the political standards put forth as well as its important position from the point of effectiveness, EU today is the focal point as an international actor in the standards on environmental politics, due to their cumulative characteristics. The truth that humans themselves are a part and parcel of the environment, environmental organisations and arrangements in the public sectors will continue to be one of the trio in the community with environmental awareness (like EU). [52]

European Union, which as a reconstruction has emerged in the context of global and regional constitutions. It is a concrete, influential and important model bearing a potential to generate policies, norms, values and standards on the subject of environment as it does in many other issues. Many technological, economic and social instruments have been put forward concerning environmental policies along with the progress and the experience of EU acquis and integration. Information and communication technologies have been one of these main instruments in carrying out environmental policies of EU.

The establishment of information net and information-communication infrastructure in the members and standing members by EU as in other political fields is an important structural formation related to the environment. The environmental informatics (Environmental Informatics- EI) holds an important position today in EU countries in the attitudes towards environmental protection and organisational activities. [53] The developments related to this are of great importance for solving the environmental problems both in the formation as well as effectiveness of environmental management and politics. Thus, the revised environmental politics by EC; as one of the Regional Organisations working on this with a parallelism in the development; is of importance for our country during the EU discussions. EU environmental legislation reflects the progressiveness from the point of environmental models applied in the present day world. As pointed out in the Union decisions summarised above real, effective and good examples for all countries in the world towards the protection and development of environment have been produced. It should be mentioned here that the shape of formation of environmental management in all countries and particularly in Turkey should be considered and applied within this perspective.

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